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THE PRESIDENT'S ADDRESS.

Delivered before the Thirty-Seventh Annual Meeting of the American Medical Association, Tuesday, May 4, 1886.

BY WILLIAM BRODIE, M. D.,
OF DETROIT, MICH.

GENTLEMEN OF THE AMERICAN MEDICAL ASSOCIATION:—With great pleasure I congratulate you on your coming together to renew old friendships, to make further acquaintances, and to add to the general storehouse of medical information, thus demonstrating to our fellow-citizens that the medical profession are not only interested in its own welfare, but also in theirs.

We have reason to be thankful to the Supreme Ruler of the universe that no epidemic disease has devastated our land, and, with but few local exceptions, that a general state of health has existed. We have also to be thankful that so many have been spared to again meet in council and demonstrate our vitality as an association. Yet with all these blessings showered upon us, Death has been within our ranks, and some of our honored ones have yielded to his sceptre. It is, therefore, with sadness that I refer to the decease of Drs. W. K. Bowling, of Nashville, Tenn., John L. Atlee, of Lancaster, Penn., and Austin Flint, Sen., of New York City, during the past year, ex-Presidents of this Association.

Dr. Bowling first identified himself with the Association in 1853, and from that time to his death was one of its firmest friends. In 1851 he founded the "Nashville Journal of Medicine and Surgery," which he sustained for a quarter of a century. The same year he assisted in founding the Medical Department of the University of Nashville, and was elected Professor of Practice and Institutes of Medicine. Deeply interested in public education, in 1853 he delivered the oration upon the occasion of laying the corner-stone of the first public school building in Nashville. In 1856 he was elected Third Vice-President of this Association. In 1861, he was sent as peace ambassador from the State of Tennessee to the Governor and Legislature of Kentucky. In 1867 he was elected First Vice-President; in 1873, President of the Association of Medical Editors, and in 1874, President of the American Medical Association.

His contributions to medical literature are to be found in the journal of which he was editor. He was never negative, but always positive in the views and opinions he advanced. In 1876, he was appointed by his State a member of the International Medical Congress of 1876, which met in Philadelphia.

As an editor, it was said of him, he never kept his printer waiting for copy or money, and the greatest living medical critic said of him in his journal: "A man of genius as well as learning, of the true poetic temperament, he has written some of the most brilliant articles in our medical annals."

He was a scholarly man and a beloved physician. As a teacher he was worshipped by his classes, and when declining years warned him of his approaching end, he retired to his summer home, Monteagle, in the Cumberland mountains, for rest and recreation. But so devoted was he to his profession that the sufferings of a little child appealed to his benevolent heart and was his last patient. He died as he had lived, a noble, generous-hearted man, loving his profession and his God.

John Light-Atlee: We find his name first registered in 1848, as a delegate from the Medical Society of the State of Pennsylvania. From that time to his elevation as president, in 1882, he was in almost constant attendance upon its meetings and was always one of its firmest supporters.

The code of ethics was to him as an injunction from the *Most High*, and he considered this Association as the embodiment of perfection.

In 1820, at the age of 21 years, he commenced the practice of medicine in his native town, where he resided until his death, October, 1885.

Surgery was his element, and in this department of medicine he achieved his reputation. He was prominent as one of the pioneers in this country for the successful operation of ovariotomy. This alone entitles his memory to a grateful recognition by the American medical profession. My first acquaintance with him began in 1856, when he took an active interest as a delegate from his native city. He was a tall, slender-looking man, with a clear and expressive countenance, indicative of firmness and confidence in the truth of his convictions, ardent in the pursuit of knowledge; he was neither obsequious to men nor submissive to opinions which he thought hostile to the best interests of his profession. He was opposed to anything that savored of quackery, and believed that medicine was a science, and based upon fundamental principles.

He was a physician in the widest sense of the term, taking an interest in every department.

He had the confidence of the profession in his home and the State of Pennsylvania, as evinced by his large consulting practice.

He left a record of 2,125 important surgical operasions, and attended 3,264 cases of parturition, all independent of hospital or college connection, and were exclusively private.

His practice embraced a period of 65 years, and continued till a few days before his death. Though advanced to his 86th year, he retained the vigor of manhood to such a remarkable degree as to appear to strangers as a man of only threescore years and ten. Of him it can be said, correct business habits enabled him to accumulate a handsome fortune. At the same time, he did a large amount of unrequited and benevolent labor. Not unmindful of his honor as a man, he never sought to enhance his own popuarity by depreciating that remuneration for services o which every honorable physician is justly entitled.

Dr. Atlee was a constant and devoted member of the Episcopal church, and adorned the doctrine he professed with reverent acknowledgment and an abiding faith. He came to his "grave in full age, like as a shock of corn cometh in its season."

Austin Flint, Sen., died March 13, 1886, at his residence in New York City, of cerebral apoplexy. He was one of the founders of the Association, being present as a delegate from the Erie County Medical Society of New York, at the initial meeting in 1847. He was then appointed one of the committee "Upon a uniform and elevated standard of the requirements for the Degree of Doctor of Medicine by all the Medical Schools of the United States." This report was exhaustive on the subject, and the resolutions appended, with only one slight amendment, were unanimously adopted, and laid the foundation of the advanced requirements of the present day.

During his membership, he gave several valuable papers to the Association. Among the most prominent were those on Practical Medicine, Materia Medica and Physiology, Cerebral Symptoms in Heart Disease, Clinical Study of Heart Sounds, Pathology of Diabetes, Typhoid Fever, and Variations in Pitch in Percussion. His Address on Medicine and Medical Progress in the United States, before the International Medical Congress of 1876, in Philadelphia, and his address as President of the Association, in 1884, were especially able. In the latter address he presented the suggestion of inviting the Ninth International Medical Congress to meet in this country, at its Capitol, Washington.

From his youth up, Dr. Flint was an indefatigable laborer in the field of medical science. His reputation as a teacher and author was world-wide. Conscientious in his relation to the profession he so fondly loved, and to the public, his recognition of the code of ethics, as exemplifying the honorable relations of the profession towards one another and to their constituents, elevated him to the position of the true gentleman.

In his death we have lost a bright star, and the International Medical Congress, for which he was selected (I may say unanimously) as its presiding officer, must mourn his sudden demise. Few men have been so justly eminent and yet so widely beloved and admired. His works are the expression of his experience and observation, and have been received by his professional brethren, not only at home, but abroad, as standard authority. The British Medical Association was honored by his acceptance of their invitation to deliver the address on *Medicine* at their next meeting, thus demonstrating the appreciation with which he was held abroad. With such a reputation as he had achieved, it may well be said, "To die is noble."

The past generation of the great men of our profession are fast fading away. The seats they have so honorably filled in this Association are becoming vacant—may we indulge the hope, to be again filled by those of the present, who will so well represent their honor and professional integrity, that future generations may say of them, their mantle has fallen upon deserving merit.

It is my purpose in addressing you at this time to confine myself chiefly to matters pertaining to the progress, interest and welfare of this Association. Although I may seem to tread in the footsteps of my predecessor, Dr. Flint, in his address at Washington, and the subject may seem familiar, yet I have an entirely different object in view.[1]

When the first National meeting of the profession, under the call of the New York State Medical Society, was held in the city of New York, May 5, 1846, Dr. I. Hays, of Philadelphia, moved, and it was resolved, "That it is expedient for the medical profession of the United States to institute a National Medical Association for the protection of their interests; for the maintenance of their honor and respectability; for the advancement of their knowledge and the extension of their usefulness." Upon this broad foundation has arisen the largest representative medical association known in history.

At this gathering 120 medical men met in consultation. They fully endorsed the resolutions presented by Dr. Hays; they also recognized the necessity of a united profession, and in order to attain this great end they resolved that a committee of three members should be appointed to report a plan of organization at a future meeting to be held in Philadelphia the first Tuesday in May, 1847.

They also recognized that a uniform and elevated standard of medical education should be adopted by all the medical schools for the degree of M.D. in the United States, and to properly present this question to the profession and the schools they appointed a committee to report at the same time.

They also recognized the fact that men were being educated who had received no suitable preliminary training, and they appointed a committee to report a standard of requirements which should be exacted of such young men as purposed entering upon the study of medicine.

[1] See Organization American Medical Association, Preliminary Volume.

They also recognized that principle was one thing and conduct another, and that the *Golden Rule*, however sound and correct, failed in practice; that, however good the intention, experience had shown that written rules and regulations were of much more binding force than abstract reasoning and even Divine Law. They therefore deemed it essential that the entire medical profession in the United States should be governed by the same code of ethics, and to that end a committee was appointed to report.

The question of the union of teaching and licensing in the same hands was also considered. It was believed to be wrong in principle and liable to great abuse in practice. Instead of conferring the right to license on medical colleges and State and county medical societies (as was then the custom), it was deemed best that it should be restricted to one Board in each State, a principle now fully recognized, and practically carried out, by the State of Illinois. This was also referred to a committee to report.

The subject of urging upon the several State governments the adoption of measures for a registration of marriages, births and deaths, was favorably considered, and referred to a committee.

They also considered the necessity of a proper nomenclature of diseases, adapted to the United States, with reference to a general registration. This was also referred for report.

According to the best information I can obtain, only four of these pioneers of this Association are now living. To them this Association owes a debt of gratitude which can never be paid. Of these four, two have been honored by the Presidency—Dr. A. Stillé and Dr. N. S. Davis. Drs. Alonzo Clark and Lewis P. Bush are the other two. All have reached their three score years and ten.

The convention of 1846 adjourned to meet in Philadelphia May 5, 1847. Twenty-two States and the District of Columbia were represented at that meeting by 247 delegates. Considering the modes of traveling at that day it was a large representation of the profession of our country, and again showed the interest in the organization of this Association. At this meeting the report of the committee on the organization of the American Medical Association was adopted, Dr. John Watson, of New York, chairman, and, what is remarkable, stands with but slight changes as the present constitution.

The report of the committee upon a uniform and elevated standard of requirements for graduation in medicine, which was adopted, called the attention of the profession to the necessity of a more rigid examination and a higher degree of preliminary education. The Educational Department at once recognized the value of the suggestion, and to-day we find the medical schools giving more attention to the quality of their graduates than to the numbers of those who receive from them the degree of M.D.

The report of the committee on preliminary education aroused the attention of both the private preceptors and the medical schools to the deficiencies of young men desirous of entering the profession. The time had come when the demand for medical men with a modicum of preliminary education was less than the supply. By means of the system of common schools, academies, colleges and universities, the people themselves were more highly educated. Men entering into the learned professions readily observed that, in order to gain the respect of their patrons who were educated, they themselves must also be educated. This report at once gave a stimulus in the proper direction, and from that day to the present, preliminary acquirements of a higher standard are required by all medical colleges which have any regard for the standing of their graduates. Education is the requisite of a gentleman, and no one should be allowed to enter the portals of the medical profession who has not that qualification.

The committee, under the resolution that it is expedient that the medical profession should be governed by the same code of medical ethics in this country, founded their report on the "basis of religion and morality," which comprised not only the duties but also the rights of a physician. The high character of that committee, their age and experience, fully qualified them for the delicate duty imposed upon them. Time has fully proved the wisdom of that report.

The Code of Ethics as adopted has stood the test of nearly forty years, and for more than nine-tenths of the regular medical profession of these United States constitutes their rule of action and professional government.

Even those styling themselves eclectics or homœopathists, have copied its principles in their constitutions and made it the basis of their relations to one another and to the public. The government of the United States is based upon a written constitution; States and municipalities are governed by the same principles. The doctrine of majorities as thereby inculcated governs the action of organized society in its minute ramifications; the medical profession is no exception. We meet here to-day upon this broad principle, and what is most remarkable, of every State Medical Society, county society, or local organization which has adopted the Code, only one has repudiated it and entered upon the rôle of a *solitary minority*. I allude to the Medical Society of the State of New York, from which came the invitation, in 1845, for the preliminary meeting that gave birth to this Association.

To their honor be it written, the majority of the profession of that great State repudiated the action of their State Medical Society, and it now has the unenviable position of being solitary and alone in its opposition to the Code of Ethics. The reason for this defection was so manifestly financial that its influence did not extend beyond its own jurisdiction. It is through its Code that this Association represents the whole body of the medical profession throughout these United States, as the American Congress represents the people of the same.

Could those wise men who framed this Code be here present with us to-day in this hall and witness your presence, they would say, like one of old, "Now lettest thou thy servant depart in peace." But one of that committee is now living.[1]

[1] Alonzo Clark, M.D., New York City.

In no one subject are the people of our country more interested than in that of medicine, and no profession is more respected.

Educated as the large majority of them are, they fully comprehend the relations of the profession. They are independent thinkers, and in their relation to the profession cannot be bought or sold. How wide the difference between this country and Europe! There a practice can be bought and sold; here a transfer is of no value because there can be no delivery.

It has been charged that this Association has failed to meet the requirements of its founders, and instead of being a body for the advancement of scientific medicine has degenerated into a body of "thankless intriguers and demagogues."[1] For thirty-nine years this Association has been in existence. At its organization no other National association of medical men existed.

A few of the older States had their State societies. The county societies in those States were few and far between. In the larger cities local societies were maintained; each was independent of the others. There was no general forum where individuals could present their investigations, and when presented, no general means of their dissemination. Could the transactions of this body be critically analyzed, the charge that scientific medicine has not been advanced by its existence would lamentably fail.

The character of the work done by the Association since its organization may be well exemplified by a few selections from its Transactions.

The essay of Dr. Dalton on the Corpus Luteum in Pregnancy gave him a National reputation as a physiologist.—*Vol. 4.*

The prize essay of Dr. Austin Flint, Sr., on the Value of Pitch in Percussion, and Respiratory Sounds and their Application to Physical Diagnosis, opened a new era in the investigation of pulmonary diseases. —*Vol. 5.*

Coxalgia or Hip Disease, by Alden March, M.D., an ex-President of this body, gave the first impulse to the proper diagnosis of this disease, and its treatment.

The prize essay of Prof. Charles D. Meigs, on Acute and Chronic Diseases of the Neck of the Uterus, laid the foundation of the department of gynecology, and the plates illustrating his cases are copied to the present time.

The Surgical Treatment of certain Forms of Fibrous Tumors of the Uterus, by Washington L. Atlee, M.D., opened the field for the ovariotomist.

The Cell—its Physiology, Pathology and Philosophy, by Waldo J. Barnett, from original investigations, anticipated Virchow.—*Vol. 6.*

The new method of treating Ununited Fractures and Certain Deformities of the Osseous System, by Daniel Brainerd, would have done credit to Malgaigne.—*Vol. 7.*

Deformities after Fractures, by Dr. F. H. Hamilton, has become authority at home and abroad.—*Vol. 8.*

Statistics of Placenta Prævia, by Dr. J. D. Trask. —*Vol. 8.*

The Clinical Study of Heart Sounds, by Austin Flint, Sr., M.D.

The Physiology of the Arterial Circulation and the Chief Pathological Relations, by Dr. H. Hartshorne. —*Vol. 9.*

Report on the Nervous System in Febrile Diseases, and the Classification of Fever by the Nervous System, by Henry Frazer Campbell, M.D., indorsed by the late Marshall Hall.—*Vol. 10.*

Report on Moral Insanity and its Relation to Medical Jurisprudence, by D. Meredith Reese, M.D. —*Vol. 11.*

Report on a Uniform Plan for Registration of Marriages, Births and Deaths, by W. L. Sutton, M.D., laid the foundation for such record.—*Vol. 12.*

Report on the Influence of Alcoholic Drinks in the Development and Progress of Pulmonary Tuberculosis, by N. S. Davis, M.D.—*Vol. 13.*

Report on Morbus Coxarius, or Hip Disease, by L. A. Sayre, M.D., illustrative of the fixed treatment by Plaster of Paris.—*Vol. 13.*

Prize essay on the Pathology of Jaundice, by S. Fleet Speer, M.D.—*Vol. 13.*

Prize essay on the Criminality and Physical Evils of Forced Abortion, by H. R. Storer, M.D.—*Vol. 16.*

Prize essay on the Surgical Treatment of Morbid Growths within the Larynx, by Louis Elsberg, M.D., the father of laryngoscopy.—*Vol. 16.*

Report on the Etiology and Pathological Relation of Epidemic Erysipelas, Spotted Fever and Diphtheria, by N. S. Davis, M.D.—*Vol. 17.*

Report on Plaster of Paris in Surgery, by James L. Little, M.D.

Prize essay on the Treatment of Certain Uterine Abnormities, by Montrose A. Pallen, M.D.—*Vol. 18.*

Report on the Best Treatment for Different Forms of Cleft Palate, by W. R. Whitehead, M.D.—*Vol. 20.*

Mollites Ossium, by Joseph Jones, M.D.—*Vol. 20.*

Prize essay on the Treatment of Aneurisms, with Experiments for the Closing of Arteries by a New Method, by Benj. Howard, M.D.—*Vol. 21.*

Prize essay, Atropia and its Salts, by Roberts Bartholow, M.D.—*Vol. 20.*

What Physiological Value has Phosphorus as an Organismal Element? Prize essay by Samuel R. Percy, M.D.—*Vol. 23.*

Syphilis in its Relation to the National Health, by S. D. Gross, M.D., LL.D., Oxon.—*Vol. 26.*

A Discourse on Blood Letting, the Lost Art, by S. D Gross, M.D., LL.D., Oxon.—*Vol. 26.*

History of Yellow Fever and Dengue in Texas, by Greenville Dowell, M.D.

Excision of Large Joints of the Extremities. A prize essay by H. Culbertson, M.D.—*Supplement to Vol. 27.*

Report on Animal Vaccination, by H. A. Martin, M.D.—*Vol. 28.*

Prophylaxis of Septicæmia in Surgery, by E. M. Moore, M.D.—*Vol. 29.*

Surgical Anatomy and History of the Common External and Internal Carotid Arteries; Anatomy and History of the Innominate and Subclavian Arteries. A prize essay by John A. Wyeth, M.D.— *Vol. 29.*

The Pathology of the Bones, by Henry H. Smith, M.D.—*Vol. 29.*

[1] New York Medical Journal, page 44, 1885.

Blepharoplastic Operations, by A. C. Post, M.D.—*Vol. 29.*

Prize essay. Consideration of Certain Forms of Primary and (Local) Secondary Degeneration of the Lateral Columns of the Spinal Cord, etc., by Allan McLane Hamilton, M.D.—*Vol. 30.*

Treatment of Fibroids of the Uterus by Means of Dry Earth, by Addinel Hewson, Sr., M.D.—*Vol. 31.*

Progress in the Knowledge of the Acute Contagious Diseases and Infection, by A. Jacobi, M.D.

Fibroid Tumors of the Uterus, by H. O. Marcy, M.D.—*Vol. 33.*

These papers fully illustrate the character of the work done by the Association since its organization. Besides the reports on Medical Education, Medical Literature, Registration of Marriages, Births and Deaths, Medical Jurisprudence, Hygiene and Insanity, Meteorology and Epidemic Diseases, Cryptogamic and Zymotic Diseases, Practical Medicine, Materia Medica, Physiology, Obstetrics and Diseases of Women and Children, Surgery and Anatomy, Chemistry and Psychology, Pediatrics, State Medicine, etc., scarcely a question of importance, whether in the interest of the profession or the public, has failed to receive investigation.

Before the time of this Association, specialties in medicine were unknown. All medical men were general practitioners. The prominence given special diseases by its reports and investigations led men to give special attention to particular diseases. The accretions of people in the larger cities developed the field for a division of general practice, and the selection of a particular branch of disease, applicable to a particular organ, was soon found to be remunerative and less toilsome. The advance of time developed the number of specialties. The first to organize a National Association were the Ophthalmologists, the leading specialty; then followed the Otologists, Gynecologists, the Dermatologists, State Medicine and Hygiene, under the name of Public Health, the Laryngologists, the Surgical Association, and latest, the Association of Physicians and Pathologists. Some of these Associations are necessarily limited in number, others have specified their limitation. All are off-shoots of this Association. Each occupies a limited territory. The American Medical Association covers the whole field of medicine, and through its Sections affords an opportunity to every member, whether high or low, to give to the profession any and all of his personal knowledge.

"No pent up Utica contracts its powers,
The boundless universe of Medicine is ours."

The course of events in science, as well as in medicine (and I use the latter term in its broadest sense), demonstrated that much which is called new has had its expression in the writings of the fathers, and experience has shown that change is not always progress.

The prevention of yellow fever, the scourge of the Gulf States, is a problem in which our whole country is interested. Dr. Joseph Holt, of New Orleans, President of the State Board of Health of Louisiana, has given much time and study to this question. A bill has been reported in the House of Representatives, at Washington, appropriating money to investigate whether it can be aborted and even prevented.

A proper resolution adopted by this body, approving such a bill, would have great weight with Congress. It is highly proper that all such investigations should be conducted at the expense of the general government.

A series of resolutions were adopted by this Association at the meeting in Atlanta, Ga., on the metric system, which have been a dead letter in the Transactions ever since. The several State Medical Associations, which at that time also approved the system, have never applied it in their Transactions. Only a few of the profession follow it in writing their prescriptions, and with rare exceptions it is not used by writers on medicine. Dr. Oldberg, through whose influence while medical purveyor in the United States Marine Hospital Service it was introduced, has declared it a failure. I would therefore recommend that it be stricken out of the list of ordinances.

The value of the Sections has been so fully proven that I would recommend that in addition to the proposed new Section of Medical Jurisprudence, one on Dermatology and Syphilis be added.

The work in the Sections depends so much upon the efficiency of their officers, the Secretary in particular, and as permanency adds to efficiency, I would recommend that the Secretaries of Sections be made permanent, subject to removal on the recommendation of the Section. The wisdom of such permanency can be readily comprehended.

In imitation of the British Medical Association, the journal system was adopted. I take great pleasure in stating that thus far it has been a satisfactory success. The Board of Trustees, with its efficient Editor-in-chief, have so managed its finances that it has proved no incumbrance on the Association. The plan adopted of receiving members by application, has proved satisfactory, not only by increasing the circulation of THE JOURNAL, but also by increasing its emoluments. The report of the trustees will give you a full and explicit statement of its financial condition and its growth.

I would also call the attention of the members of the Association to paragraph 3, sec. 4, of the by-laws: "Every paper received by this Association and ordered to be published, and all plates or other means of illustration, shall be considered the exclusive property of the Association, and shall be published and sold for the exclusive benefit of the Association."

As this by-law makes all addresses, papers and reports presented to the Association, or in its Sections, the exclusive property of the Association, it is not proper to give copies of such addresses to other journals to appear entire before or simultaneous with their appearance in THE JOURNAL OF THE ASSOCIATION. If the proprietors of other journals choose to employ competent reporters to secure such reports and abstracts of your proceedings, either in the general session or in the Sections, I would place no obstacle in their way. But if they wish to use papers in full, let them copy the same from the official organ of the Association, giving proper credit therefore. And every member of the Association should have suffici-

ent interest in sustaining THE JOURNAL that it has established, to comply fully with the by-law I have quoted.

I respectfully call your attention, and through you that of the medical profession at large, to the last paragraph of sec. 2, art. 1, "Duties for the Support of Professional Character," Code of Ethics, to wit: "It is also reprehensible for physicians to give certificates attesting the efficacy of *patent* or secret medicines, or in any way to promote the use of them." The fact that proprietary medicines were not included in this paragraph has left the door wide open for the greatest abuse and injury both to the profession and the public. Practically there is no difference between a patent medicine and a proprietary one. In the former the constituents are not known, and although given in the latter, there rests an ownership in their combination that prevents them being compounded by others. Professional men of high repute who lend their names as endorsers to any proprietary medicine should be looked upon by the profession as aiders and abettors, and should be proper subjects for discipline in any honorable medical society. It is one of the crying evils of the day, and does injury both to the profession and to the public.

The stigma of professional disgrace should rest upon any regularly educated physician who allows his name to be advertised as the endorser of any patent, secret or proprietary medicine.

The British Medical Association is peculiar in its organization, consisting of the parent stem and its branches. It has been suggested that this Association be modeled upon the same plan, by the formation of branches in the different States and Territories.

Upon a careful examination of the Constitution of the British Association and its branches, I am unable to discover any superiority to that of this Association and its affiliations.

In practical application our own system meets the same ends. Late leading articles in THE JOURNAL OF THE ASSOCIATION have so well discussed the question that it needs no further elucidation from me. However, its reference to a committee to report next year might be profitable, as any information or change that can add to the improvement and advantage of the Association should be adopted.

It is with great pleasure that I am able to inform you that the action taken at the meeting in Washington, inviting the Ninth International Medical Congress to meet in the Capital City of the United States in 1887, is being fully consummated. The general officers of the Congress and Council, and the officers of the Sections, are gentlemen of renown in our own country, who add lustre to American medicine. Full and complete arrangements will be made for the meeting, and our foreign friends will receive a cordial welcome. Upon the reception of the report of your committee on the preliminary organization of the Congress, I believe you will find it satisfactory, and upon its adoption the further charge of the Congress will pass into the hands of the Executive Committee, as provided in Rule 10, thus relieving this Association of its responsibility in the matter.

As the authority of this body to act for the medical profession of the United States has been questioned, it may be proper for the information of many of the members to briefly present, in a concise manner, the relations of the Association to the coming International Congress.

A Medical Congress to be International must necessarily be composed of members from different nations. Eight of these Congresses have been held in Europe, if we may except the International Medical Congress held in Philadelphia, September 4, 1876, the last of which was held in Copenhagen, Denmark.

At the meeting of this Association in Washington, D. C., in May 1884, the President, Dr. Austin Flint, Sr., suggested the propriety of inviting that body to meet in this country. The suggestion was referred to a committee who reported favorably. A committee was appointed to present the invitation. This committee was made broad, so as to represent the whole profession of the United States. The invitation was accepted. This committee was further authorized, in the event of the invitation being accepted, to add to their numbers, and proceed to perfect an organization with rules for its government. This the committee did, in accordance with custom and the rules governing the action of committees. This committee made its report to this Association at its next meeting, which was in New Orleans, the 28th day of April, 1885. By this action of the committee they fully recognize their responsibility to this body, and not to the profession at large.

This report was not satisfactory, and the committee was enlarged by adding a member from each State and Territory, the Army, the Navy, and Marine Hospital Department. To this action the original committee demurred, and declined to take any further interest in the arrangements. That the Association was correct in its action I have only to refer you to *Cushing's Manual of Parliamentary Law*, the authority in this country, page 154, paragraph 262. When this committee made their report, and it was accepted, the committee was virtually discharged, (page 168, paragraph 290). The report was not adopted. What had passed in the committee was of no validity. It was in the power of the Association to discharge the committee from further consideration of the subject, to refer it back to them with instructions, or to enlarge the committee. The latter plan was adopted.

It was claimed that there was an ambiguity in the resolution appointing the original committee in reference to their powers and duties. Whatever that ambiguity was, the committee itself settled the question by making their report to the Association, thereby acknowledging the authority of their powers and duties.

I cordially unite with the general sentiment of the medical profession that the report of your committee be adopted, and that those of our brethren who may be somewhat disappointed at results will yield their personal feelings to the common good, and by their work demonstrate to our foreign friends that, although there have been warm feelings, warmly expressed, they can rise above their personalities in the great question of Medical Science and National Hospitality.

Gentlemen, matters of importance arising out of the ordinary proceedings of this Association may come before you at this meeting, and questions may arise affecting its honor and integrity. Even the existence of this Association, so dear to the hearts of the medical profession of these United States, may be hazarded. Upon you as its representatives will rest its preservation. Thirty-nine years of existence has entitled it to your support. Its work and beneficent influences are on record, and speak for themselves. May I ask of you, as its President, to give careful consideration to any and all matters that may affect its interest and permanency, so that when you return to your constituency you can tell them that, although the Association has been attacked by foes within and foes without, it yet stands as the representative of the American medical profession.

In conclusion, may I kindly ask of you the amenities due to the office to which you have so kindly promoted me, and your cordial support. It shall be my endeavor to be impartial, and to perform the duties of the chair according to strict parliamentary rules.

The honor of being elected by you as President of the American Medical Association is one that words cannot express. For thirty-two years I have, whether present or absent, had its interests deeply at heart, and when my term of office expires I will gladly return to the ranks with the same zeal for its interests which I felt when I first became a member in this great city of the south-west, St. Louis, Missouri, at the meeting of the Association here in 1854.

ORIGINAL ARTICLES.

TWO CASES OF REFLEX PARAPLEGIA (ONE WITH APHASIA), FROM TAPE-WORM AND PHIMOSIS.

BY WM. G. EGGLESTON, M.A., M.D.,
OF CHICAGO, ILL.

The existence of a "reflex paralysis" was denied about two years ago (May, 1884) by Dr. C. J. Nixon in a paper read before the Academy of Medicine in Ireland. Dr. Nixon's paper was to the effect that the cases of paralysis of which amaurosis from affections of the fifth nerve, and paralysis of the orbital nerves from a like cause, are examples, may be explained without reflex mechanism. As regards the views of Brown-Séquard, Gull. Leyden, and others, and the experimental observations on the subject, he said that there was no true conception[1] of the mode in which paralysis by reflex action is brought about, unless we understand it to be produced by inhibitory influence; so that reflex paralysis, if it have any meaning, must be inhibitory paralysis. He thought that there is no necessity of admitting the existence of an inhibitory paralysis, as, taking for example the cases recorded as reflex paralysis, they could arise in different ways—as an ascending neuritis, which sets up myelitis from extension along the veins[2] to the spinal cord, or from a lumbo-sacral neuritis, which descends along the sciatic nerves. He held that the cure of a paralysis by such a simple procedure as lancing a gum was a physical impossibility. It is particularly to be noticed that though he said he had never seen a case of reflex paralysis, he quoted examples of *inhibitory* nerve influence, which he says is another name for reflex paralysis!

At the meeting at which this paper was read Dr. Kennedy opposed Dr. Nixon's views, as did others, and stated that he had seen several cases of arm-paralysis from gingival and intestinal irritation, the paralysis disappearing on the removal of the irritation. Two or three years ago Dr. Gomez Torres reported the case of a woman with paralysis and atrophy (partial?) of the upper extremity. Examination showed a chronic parenchymatous metritis and extensive ulceration of the cervix. She began to improve almost immediately under proper treatment for the uterine affection. Fränkel has recorded a case of hemiplegia due to indigestion. In the *Journal de Médecine et de Chirurgie Pratique*, September, 1884, are recorded three cases of aphasia from indigestion. A boy, 3 years old, was aphasic for two hours, and recovered after vomiting; a little boy was aphasic for a day, and recovered after vomiting; a little girl was aphasic for about a day, and recovered in the same way. The two cases which follow may, I think, be regarded as undoubted examples of reflex or inhibitory paraplegia.

Case 1.—Reflex Paraplegia and Aphasia from Tape-worm.—In July, 1884, a woman brought her little girl, æt. 6 years, of German parentage, to my office (in Philadelphia). The child had been under treatment in one of the dispensaries for five weeks for spinal disease. It was taken to the dispensary on the day after its illness became markedly prominent. The symptom first noticed was inability to speak, and on the next day it was unable to walk. Previous to this the child had not been sick since its second year, though it had frequently complained of its stomach. There had been no vomiting, and no diarrhœa. The mother stated that there had been no difficulty in swallowing at any time, and the child's appetite was enormous. It had no difficulty in putting out its tongue, voluntary movements of the upper extremity were normal, and the pupils were normal. The vesical and rectal sphincters were under control.

Physical examination showed entire absence of painful spots along the spine, absence of cardiac disease, a rather marked enlargement of the abdomen, and no anæsthesia, rigidity or atrophy of the paretic legs. The patellar reflexes were normal. In testing for anæsthesia I drew a pencil along the anterior aspect of one leg, and found, to my astonishment, that a white line was produced. The same line was produced by irritation of the other leg. This convinced me that the paraplegia was not due to spinal disease, in which irritation produces a red line. In the erect position the child was utterly unable to move the legs, while in the recumbent posture it could draw them up with apparent ease; facts which at once recalled the remarks of Romberg[1] on reflex paralysis from intestinal irritation. The fact that the child had for some time prior to its illness eaten raw meat with

[1] Abstract in The Lancet, August 23, 1884.
[2] A way of transmission supposed by Gull.

[1] Diseases of the Nervous System, Sydenham Edition, 1853.

its parents, and the further fact that there was a condition of marked pruritus at either end of the alimentary tract, caused me to make a temporary diagnosis of tape-worm.

I instructed the mother to give only milk for the child's supper, and to give two teaspoonsful of spirits of turpentine at 6 A.M., with the same quantity of milk, two at 8, and two at 10 with a tablespoonful of castor oil. The mother was to report if the turpentine caused any unpleasant effects.

On the day after the turpentine was administered the mother brought me a bottle containing a tænia solium, five feet and a few inches long, with the head. The tænia was passed about noon, two hours after the dose of castor oil was given. It was the ordinary pork tape-worm—tænia solium, as stated above.

The patient did not speak or walk until the morning after the tænia was evacuated. There was then no difficulty in articulation, nor did it seem to have forgotten its ordinary vocabulary. The power over the legs was not so suddenly acquired, but when brought to my office two days afterwards there seemed to be no difficulty in locomotion.

Here was a case of simple paralysis of the lower limbs, of two months' duration, sudden onset, accompanied by aphasia, neither of which were intermittent, and evidently in no way connected with chorea; without sensory trouble, or want of control over the bladder and rectum. It seems in the highest degree improbable that either of the troubles for which she came under treatment could have been due, as Dr. Nixon thinks, to an ascending neuritis—as improbable, in fact, as that the twitching of the eyelid so frequently seen in dyspeptic cases should be due to a sudden neuritis, which disappears equally suddenly. This is more especially true of the three cases cited above from the *Journal de Médecine de Paris.*

Case 2.—Reflex Paraplegia and Strabismus from Phimosis—On January 3, 1886, I was called to see E. K., æt. 3 years, a poorly nourished boy, of rather rachitic appearance. The mother said that he had never walked as well as he should for his age, and that for two weeks the power over the lower extremities had decreased very rapidly until it was noticed on January 2 that he could not walk at all. Two days before this it was first noticed that his eyes were strabismic—alternately convergent and divergent. The father was a traveling man, and the boy had been under electric treatment in Kansas City for a week before coming to Chicago.

On examining the patient I at once discovered that there was a considerable degree of phimosis, with two adhesions. In the recumbent posture he could draw the legs up with much difficulty, but when erect he had no power over them. There was no anæsthesia, no tender spots along the spine or elsewhere. The patellar reflex was normal. The rectal sphincter was under perfect control, but there was some loss of power over the vesical. It was easily seen that the strabismus was alternately convergent and divergent. Remembering the white line produced by irritation of the skin in Case 1, I found that the same thing occurred in this case.[1]

[1] Unfortunately, it did not occur to me in either case to test the skin of the unaffected portion of the body.

Three drops of an eight per cent. solution of cocaine were injected between the glans and foreskin, and the adhesions were easily and painlessly ruptured within two minutes. The line of operation was then marked out, the foreskin drawn forwards and caught in a pair of padded forceps, and three drops of the cocaine solution injected into the foreskin at different points. The forceps were then gradually tightened in order to prevent the cocaine gaining access to the general system and possibly causing evil effects. Two minutes after the injection there was no sensibility to a needle run through the foreskin, and it was then severed. The cocaine solution was then applied locally around the corona, and the operation was leisurely completed without a cry from the patient.

The operation was performed late in the afternoon, and it was not hoped that any result could be seen until the following day. On the next morning the strabismus was only slightly noticeable, and it passed away entirely within forty-eight hours after the operatian. The patient was kept quiet for three days on account of the operation. When he got up he could walk fairly well by supporting himself with a chair. As he had never walked well it was not to be hoped that locomotion would be very good until after the lapse of several weeks. He was put on tonic treatment, and his father left Chicago ten days after the operation. On April 17 he wrote from Omaha that his son walked easily without support, that there was no squint, and that his general health was very much better.

Mr. D. Corbett, of Dublin, has reported[1] the case of a girl, æt. 7, whose condition was described by her father, a medical man, as follows: "Nothing unusual in her condition since birth was observed, until within a period of two years, when weakness of the lower extremities showed itself, accompanied with occasional impairment of vision. This state of things gradually grew worse, until the power of progression was quite gone, unless assisted, and there was complete loss of vision when she assumed the erect from the sitting posture, though in the latter she could distinctly see large objects." Mr. Corbett found incompletely ruptured wisdom teeth in the lower jaw, and giving unmistakable evidence of severe pressure against the second molar to the extent of slight lateral displacement downwards. The second molar on each side was extracted. Slight improvement was noticed in a week, and three months afterwards all constitutional disturbance had disappeared, except that vision in the right eye was lost.

McKendrick[2] has reported the case of a woman, aged 29, who had suffered for seven months from a partial paralysis of the lower limbs, with normal sensibility. She passed a tape-worm nearly twenty-two feet long, and four days afterwards had completely recovered the use of her limbs. Fuller[3] has reported the case of a boy, 3 years old, who had paralysis first of the right leg, and then of the left. Immediate improvement followed a dose of santonine, which brought away fifty-three dead lumbricoid worms.

[1] Transactions Seventh International Congress, iii, 474.
[2] The Lancet, Vol. II, 1865.
[3] Lancet, Vol. II, 1866.

Moll[1] reported the case of a woman who suffered for three months from paralysis of the upper extremities. All the symptoms disappeared immediately upon the expulsion of a tape-worm.

The number of cases reported in which recovery has followed immediately upon removal of the irritation is too large, though the number may be absolutely small, to admit the idea of organic spinal lesion. In some of the cases of peripheral paralysis reported by Mitchell, Keen and Morehouse, for example, the paralysis in the parts supplied by one nerve followed injury to another nerve too soon to admit of any anatomical lesion. In many cases the paralysis can be explained in no other way than as a reflex inhibitory action. Echeverria reported, in 1863, a case of paraplegia of the lower extremities caused by the application of electricity to an ulcerated os uteri. The paraplegia disappeared in fourteen hours. Nonat[2] published a case of loss of consciousness and paraplegia due to cauterization of the cervix uteri. Landry reported a case in which paralysis disappeared after restoration of a deflected uterus. Rosenthal has reported a case of a woman, 23 years old, who suffered for three weeks from paresis of the legs, coming on after pains and cramps in the abdomen. A needle was found deeply imbedded in the vagina, and the paresis rapidly disappeared after its removal.

M. Molard has recently published[3] a case of amaurosis, in which it is fair to assume that a tape-worm was an, if not the, etiological factor. The patient, a man, was seized with sunstroke, and subsequently exhibited symptoms of cerebral congestion, accompanied by amaurosis. This condition disappeared for a time and then returned. The muscles of the neck were stiff; pharyngeal spasm occurred; he became insensible, delirious, and presented amblyopia, with dilated pupils. It was then ascertained that the patient was *subject to frequent cerebral attacks of a similar character*, and that each attack coincided with the expulsion of fragments of tænia. The bark of pomegranate root was administered, the worm was expelled, the patient's condition improved, and he was finally cured.

Dr. W. B. Hadden[4] records some very interesting cases of aphasia and paralysis occurring in chorea. He calls "attention to the apparent resemblance which exists between the speechlessness of chorea and the motor paralysis. Both are transitory conditions, probably dependent on inhibition of motor centres and not necessarily due to exhaustion by antecedent spasm."

We may admit that it is against all analogy with what is usually seen that vascular constriction to the extent of causing paraplegia (as has been held) will be persistent. But there are some cases which can scarcely be explained as being due, not to reflex irritation, but to a definite abnormal condition of the peripheral nerves, that affected the cord by lines of anatomical transmission. As Fox[5] very properly remarks, it is the very essence of the pathology of the sympathetic system that the irritation in one organ can be reflected through a sympathetic ganglion as a centre of a reflex arc . . . "but that such an irritation can reflect through a ganglion a persistent constrictive effect on a vessel seems to militate against the ordinary phenomena of physiology and disease. And yet it is only fair to place upon record any facts that, exceptional as they may be, tell in any way against this commonly received dictum. The following instance is a case in point:

"A very sensible and active shopwoman, 36 years of age, gave the following account of herself: She believed that she had been born blind of the right eye. At any rate she remembered, when she was a very little girl, being taken to see an oculist in London, who said she would never see with that eye. She could not distinguish light with it. In January, 1882, she had a canine tooth on the right side of the mouth extracted. She immediately became conscious of light, and in a few days entirely gained sight in this eye. The optic disk and retina were perfectly normal, yet for thirty-six years she was quite blind, apparently from some reflex influence connected with the alveolus of that tooth. With such an instance, it may not be well to speak of the impossibility of reflex irritation or reflex paralysis being persistent for long periods. Nor is it well to speak, as does Dr. Nixon, of the physiological impossibility of a true reflex paralysis.

Some authors hold that in order to establish a causative relation between different local lesions and paralysis, it is necessary to show that the former precede the occurrence of the latter in a large number of cases; and that when we consider that the various local diseases which are supposed to have causative connection are not associated with paralysis in the vast majority of cases, such a connection, when the association exists, is conjectural. But I do not see that the causative relation is so conjectural, even if the number of cases be small comparatively. The number of people, for example, in whom quinine will produce a rash is very small; and the number of people who always have urticaria after eating shell-fish is also very small. Yet the authors, some at least, who hold that the causative relation of local irritations to paralysis is conjectural distinctly avow that urticaria may be caused by eating shell-fish. It seems rather inconsistent to hold that the one cannot set up a reflex paralysis while the other may cause a reflex cutaneous affection.

In reflex paraplegia, according to Ross, the paralysis is never complete, and Charcot says that the reflex activity of the cord is never increased. There is absence of pain in the loins, of girdle pains, dysæsthesiæ, anæsthesia and of contractures (?), of paralysis of the bladder, and of bed-sores and other trophic disturbances (Ross).

Fagge thought that "the only way in which one can exclude the possibility that the relation between the primary disease and the paralysis is purely accidental, is to show that the cases in question are too numerous to admit of such an explanation. But can this be shown? I must for my part confess that I have

[1] Quoted by Ross from Brown-Séquard.
[2] Quoted by Rosenthal.
[3] Receuil d'Ophthalmologie, quoted in the British Medical Journal, Nov. 21, 1885.
[4] St. Thomas's Hospital Reports, n. s., Vol. XIV.
[5] E. Long Fox, Influence of the Sympathetic on Disease, London, 1885.

never yet had under my care a patient who appeared to me to be suffering from reflex paraplegia."[1] He thinks it scarcely possible to exclude hysteria as a cause of the loss of power in those cases in which women rapidly recover from paralysis after reduction of a flexed uterus. But is there any more reason why a displaced uterus should not cause reflex symptoms than that they should be caused by intestinal worms, by dental irritation, or by stricture of the urethra? Graves recorded the case of a man who was admitted to the Richmond Hospital in 1835 with partial paraplegia of two weeks' standing, and a tight stricture which had existed for some months.[2] "He had recently been exposed to cold and wet, and this might have been regarded as the cause of the paralysis. But in a very few days after the first introduction of a catheter a remarkable improvement took place in his legs and in his back, where he had much pain. In fact, the change was almost sudden; and within a month the power of the lower limbs was almost restored. It would seem that we may fairly regard this as a case of reflex paraplegia." But it seems that there is much more reason for regarding this as a case of recovery from slight myelitis, in view of the length of time required for recovery, than many of the cases of true reflex paraplegia which have been regarded as doubtless due to hysteria or myelitis.

Again, it is not at all unreasonable to suppose that many cases commence as reflex cases, but that long persistence of the irritation may set up a myelitis. And if we hold that the cases of supposed reflex irritation are really due to myelitis, we are reduced to the pathological absurdity of maintaining that a myelitis may be entirely cured within twenty-four hours, or else that all the cases of quick recovery on the removal of an irritation are mere coincidences of nervous affection and the presence of an irritant.[3] In reply to those who say that it must be shown that the cases in question are too numerous to admit of any other explanation than that of coincidence, it may be said that they are too numerous. It is not at all necessary to confine the evidence to cases of paraplegia. If the presence of an intestinal irritation can cause general convulsions, chorea, incontinence of urine, epilepsy and aphasia, or decay of a tooth headache, a nasal polypus epilepsy,[4] nasal irritation cough, etc., it is entirely admissable to hold that paralysis may be solely due to irritation conveyed reflexly. Even admitting that many of the cases occurring in women may be fairly attributed to hysteria, we may practically exclude hysteria in the cases of young children who have presented these symptoms and recovered almost immediately after removal of an irritation: an irritation which, had it been proved and produced in slighter affection, would certainly be held to be the direct cause of the affection.

Eichhorst[1] says: The name reflex paralysis is based on the idea that affections of the peripheral organs can so act on the cord that spinal paralyses are produced therefrom. They almost always appear as paraplegias. Reflex paralyses most frequently appear in connection with diseases of the uro-genital and intestinal apparatus. "The possibility of the occurrence of reflex paralysis in the proper sense must certainly be admitted for those cases in which a paralysis disappears almost immediately after the cause is removed, as it can scarcely be due to anatomical changes in the nervous system; still, in our present experience these changes are the exception.

Lewisson's theory, which is probably correct in true reflex paralysis, is that the paralysis is due to an arrest of the functions of the motor nerve centres, in consequence of excessive irritation of the sensory fibres.[2] We need not go so far as Jaccoud, and say that reflex paralysis paraplegia is due to an "exhaustion" of that portion of the cord upon which fall the stimuli conveyed upward by the sensitive nerves belonging to an irritated part; a theory which is unsupported.[3] It is only necessary to know that the sympathetic ganglia can act as independent centres for reflex arcs.[4] This takes place as each blood-wave in its passage along the arterial system, forms the stimulus to the eisodic conductors to one another of the minute sympathetic ganglia found along the course of all the blood-vessels, their function being the reception of these stimuli from the fibrils excited by the blood-wave, and reflecting the order for contraction down the exodic fibres to the vessels again.[5] Sorgenfrey has raised the question as to whether Landry's paralysis[6] may not be due to vaso-motor disturbances (in a report of a case cured by ergot).

These considerations naturally suggest the idea of Eichhorst,[7] that the aphasia of chorea, catalepsy, intestinal irritation, etc., is due to ephemeral circulatory trouble; by which he must mean vaso-motor trouble, and necessarily a reflex vaso-motor trouble. Martin Bernhardt[8] recognizes reflex action from the digestive tract as an etiological factor in aphasia (reflex aphasia). We know that contraction is the function of the vaso-motor nerves most frequently called into exercise. Now in paraplegia by compression white lines are more easily produced by irritation of the skin than red lines (the so-called meningeal lines), and it is to be noticed that in both the cases reported by the writer white lines were produced when the finger was drawn across the legs.

The application of the doctrine of "inhibition" to

[1] Practice of Medicine, Vol. I, p. 409.

[2] Fagge, l. c., p. 407.

[3] C. B. Radcliffe (Reynolds's System of Medicine, Vol. II, London Ed., 1878) says that reflex paraplegia differs diametrically from paraplegia produced by myelitis: "In paraplegia from myelitis the paralysis is associated with tingling, numbness, or anæsthesia; not so in reflex paraplegia. In paraplegia from myelitis paralysis of the bladder and lower bowel is a marked phenomena; not so in reflex paraplegia. In paraplegia from myelitis the paralyzed muscles are usually atrophied and degenerated; not so in reflex paraplegia. In myelitic paraplegia cure, or even improvement, is the exception; in reflex paraplegia it is the rule. But the diagnosis between reflex paraplegia from congestion of the cord is extremely difficult." I would not say that the paraplegias differ diametrically, but simply that paraplegia from myelitis is a more complete paralysis.

[4] Fincke, Deutsche med. Wochenschrift, No. 4, 1886, quoted in Jahrbuch d. Pract. Med., Hft. 1, 1886.

[1] Specielle Pathologie und Therapie, Bd. III.

[2] The "inhibitory" theory. It seems, however, that he should have inserted the word *certain* before "motor nerve centres."

[3] Unsupported pathologically; though by no means untenable and certainly not unintelligible, as Fagge seemed to think.

[4] While we may admit that cases of reflex paraplegia are due to *an affection* of the central nerve-structure of the lumbar region cord, it is not at all necessary to hold that the cord is damaged.

[5] Fox, l. c.

[6] Acute ascending paralysis.

[7] L. c., Bd. III.

[8] Virchow's Archiv, Bd. 102, S. 26, quoted in Jahrbuch d. Pract. Medicin, 1886, p. 312.

paraplegia was made by Lewisson in 1869. In a series of experiments on rabbits he succeeded in paralyzing the lower limbs by squeezing the kidney, the uterus, or a loop of intestine. The loss of power continued while the pressure lasted, or a little longer, and disappeared abruptly. In *Guy's Hospital Reports*, 1868, Mr. Salter gives two cases in which caries of wisdom teeth not only caused severe pain in the arm, but partial paralysis of the muscles. In one case all the symptoms passed off as soon as the tooth was drawn, and in the other a like result followed within a few hours after drawing the tooth. Fagge refers to these cases, and admits that they, and some cases of paraplegia occurring coincidentally with intestinal worms, are "in perfect accord with Lewisson's experimental results, since they subsided as soon as the source of irritation was removed." Just how many cases of an almost exact similar nature, with abrupt termination on removal of a coincident irritation, have been reported can only be learned by a thorough examination of medical literature. The cases reported in this paper have been found in a very short time and with a very limited literature at hand. But I think that a sufficient number have been referred to to permit the idea that the nervous affections and the irritants are not always mere coincidences, and that even when the affections occur in women it will not do to say always that "it is scarcely possible to exclude hysteria as a cause of the loss of power."

Bramwell,[1] in discussing the functional paralyses occasionally resulting from peripheral irritation acting reflexly, says that the cases in which there is an organic lesion of the cord cannot correctly be termed *reflex*, if we understand by that term *a functional paralysis due to peripheral irritation acting reflexly*. "True reflex paralysis is undoubtedly rare, but that it does occasionally occur in man seems beyond dispute; and that it can be induced in the lower animals seems proved by the remarkable chloroform experiments which Brown-Séquard has lately published. The diagnosis of reflex paralysis is always hazardous, and should only be made when:

1stly. There is no evidence of organic disease.

2dly. There is a manifest source of peripheral irritation.

3dly and *chiefly*. The removal of that irritation is followed by disappearance of the paralysis.

Temporary paralysis due to vaso-motor changes in the cord are sometimes met with and are clearly functional in character."

ARSENITE OF BROMINE IN DIABETES MELLITUS.

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In July, 1884, an article appeared in THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, written by Austin Flint, Jr., on "Diabetes Mellitus". In this article he recommended for medicinal treatment the liq. brom. arsenitis, first suggested by Clemens. During the last year I have had opportunity to try this drug in a considerable number of cases. They have so uniformly progressed favorably that I have thought it worth while recording them. It is difficult, however, to estimate justly the action of any drug in this disease, for we know that a proper modification of the diet will alone produce the most marked curative effects, and probably no one ventures to treat a case without simultaneously regulating the patient's diet.

The first case in which I used the arsenite of bromine was that of a lady past middle life, living in a neighboring city. She had for several months been losing strength and flesh. She complained of a perverted appetite for liquids, and noticed that the urine was passed with frequency and in unusual quantities. The symptoms that are most noticed by the patient were an unnatural weariness on slight exertion, and a very considerable loss of flesh, amounting to twenty pounds or so in six or eight weeks. In this case, there was frequently present a peculiar stinging pain in the tongue, and a twitching of that organ.

When the urine was examined, it was found to be heavily laden with sugar. A strict diabetic diet was prescribed, together with the arsenite of bromine in three-drop doses three times daily; also granules of digitaline, each of one-sixtieth of a grain. The latter was used to steady and strengthen the heart's action, which was unusually weak and somewhat irregular.

At the end of the first week, a trace only of sugar was found in the urine and all the symptoms were mitigated. The dose of the arsenite of bromine was increased to five drops. At the end of the second week, or a little sooner, all trace of sugar disappeared from the urine, and there was a steady and marked general improvement. This improvement was steadily maintained, and in two months from the time the patient came under treatment, she was feeling quite herself again. Although frequently tested, the urine never showed signs of sugar after its first appearance. The patient was as faithful for four or five weeks to the prescribed diet as one can be, and returned to an ordinary diet very gradually. She has been under observation for nearly a year now and has shown no signs of a relapse.

The second case was also in a woman, a little past middle life, but in the middle class of society. When first seen she complained of excessive weakness, which had gradually but somewhat rapidly stolen upon her, and an excessive and seemingly unquenchable thirst. She had lost flesh only moderately. The appetite for food was scarcely up to the average. The urine was more abundant than normal, and was clear and limpid. She was so weak, or as she expressed it, "so tottering upon her feet," that she could scarcely walk across the room. The weather was sultry, but her skin was dry.

She, also, was placed upon the arsenite of bromine in five-drop doses three times daily, and her diet prescribed. In the use of a restricted diet she was not at all persevering. I think, therefore, that in this case little of the improvement which followed treatment can be ascribed to the food eaten, or rather uneaten.

[1] Brain, Vol. IV, p. 41.

In a week from the first visit she had so far improved that she could easily get about the house, and the sugar had disappeared almost entirely from the urine. The thirst had disappeared, and in every way she was improved. I did not get a sample of the urine to test until ten days had passed, and in this no sugar was found. Improvement continued steadily. After this date I ceased to hear from her directly. From other members of her family, who consulted me in regard to themselves, I learned from time to time during several months that she was feeling quite well.

The third case that came under my observation in this period is not worth recording, as after making a diagnosis and prescribing as in the former cases, it passed into other hands. It was a gentleman already under treatment who came to me for additional counsel.

The fourth case was that of a lady in the best station of life, about fifty years of age. She had been under my father's care for four or five years, and my own, at times, for two years. In her case the diabetes usually came readily under control, but in from six to nine months there was apt to occur a relapse. These relapses were marked by loss of flesh, but much more marked loss of strength and energy. She had during all those years adhered to a modified diabetic diet, being allowed a very little sugar in her coffee in the morning, and a very moderate amount of wheat bread. The relapses, or return of diabetic trouble, could nearly always be traced to over-exertion and a little laxity in the diet. If she attended two or three lunches or receptions in quick succession, and was tempted to take preserved fruit or cake, a new outbreak of the disease was very apt to follow.

At the time of which I now write she was suffering from an attack thus provoked. In addition to the usual loss of strength and energy and the presence of sugar in the urine which ordinarily marked her attacks, she suffered severely from pruritus vulvæ. She had begun to exercise rigid care about her diet of her own accord, two or three days before consulting me. There was, however, abundance of sugar in the urine. As previously she had appeared to recover quickly under the use of small doses of calomel maintained for a few days, and a pill of extract of ergot of three grains, three times daily. She was first placed upon the ergot, and, with the hope of getting the effect of the mercury, and still more marked effect upon the pruritus through arsenic, she was also given six drop doses of Donovan's solution three times daily. As an external application, carbolized cosmolin was used. She returned in two or three days, complaining of heaviness of the eye-lids and puffing of them. There was slight but evident œdema of the lids. The Donovan's solution was discontinued, and she was given a mixture of glycerine and citric acid, in the proportion of about eight to one, which she had previously used with benefit. A week later she was not feeling much better, although the urine contained less sugar. The pruritus still persisted.

At this time the use of arsenite of bromine was begun. In a few days all the symptoms were mitigated, and in two weeks she was feeling as well as usual. The sugar entirely disappeared from the urine soon after the arsenite of bromine was employed.

The next case was that of a man living in the central part of the State, who was unusually large and ponderous. He came to the office complaining of lack of energy, weariness on slight exertion, and pain, particularly in one ankle, which some months before had been sprained. His appetite was unusually good, but there was no great thirst. He passed urine frequently, and very large quantities, filling an ordinary *pôt de chambre* full between ten at night and seven in the morning. The urine was of a light amber color, clear, and contained a large quantity of sugar. He had lost flesh, and was steadily losing, although still unusually heavy. The loss of energy and strength was, however, most marked.

His diet was carefully prescribed, and the arsenite of bromine in five-drop doses, three times daily, was ordered. A week later, no sugar could be found in the urine, and he said he thought he felt a little better generally. The quantity of urine secreted was much less. At the end of the second week he was feeling very greatly improved; his strength and natural energy had very considerably returned, and as he expressed it, he was getting back some of his old spring and elasticity of gait. The pain in the ankle about which he first complained was nearly gone. I had thought that that was only in part due to the sprain which his ankle had suffered, but was in part rheumatic, and accordingly at the end of the first week I gave him a pill of salacylic acid of two and a half grains, four times daily, in addition to his other medicine. Steady improvement has taken place in this case, and no sugar has been detected in his urine after the first week of treatment.

The next case was also that of a man residing some fifty miles from Chicago. He was in the middle period of life. For some months he had been losing flesh, having lost as much as twenty pounds in all. He complains much of the quickness with which he becomes wearied when walking, especially in the legs below the knees. His countenance presents a worn appearance; the color of the face is sallow; he urinates more frequently than natural, and copiously. The first sample of urine shown me was slightly redder than natural. At the bottom of the bottle there was a slight cloud of mucus, and over the sides and bottom numerous fine, beautiful reddish crystals of uric acid. No albumen was found in the urine, but after filtering off the sediment the characteristic reaction of sugar was obtained.

The treatment prescribed consisted in directions as regards diet, and the use of arsenite of bromine as in the last case. Ten days later the urine appeared clear and contained no sugar. He is still under observation, and although there is a little improvement in his feelings generally, only three weeks have passed since he was placed under treatment, and we cannot yet judge of the result.

In these cases, I have continued to use the arsenite of bromine for some weeks after sugar had disappeared from the urine, and until the ability of the

patient to bear a more varied diet had been tested. In these cases, improvement, and decided improvement came promptly upon the use of the remedy.

In regard to the diet, sugar and food containing it, and vegetables rich in starch were forbidden. Bread was allowed only in the most moderate quantities. Patients are always desirous of explicit directions in regard to diet, and I have found it convenient and useful to give them a written or pantagraphic copy of the following:

ARTICLES OF FOOD FORBIDDEN.

Bread, cake, pastry of all kinds, and food prepared with flour, cracked wheat, oatmeal, rice.

Potatoes, turnips, beets, beans, corn, carrots.

Prunes, grapes, figs, bananas, pears, apples, preserved fruits.

Liquors of all kinds, whether distilled or fermented.

ARTICLES OF FOOD PERMITTED.

Soups, except those rich in vegetables, meat of all kinds, fish, eggs, oysters.

Radishes, cucumbers, cresses, celery, lettuce, spinach, cauliflower, cabbage, tomatoes, oyster-plant, onions, string beans, parseley, mushrooms, salads, pickles, olives, oil.

Lemons, gooseberries, currants, sparingly of raspberries, strawberries, oranges.

Milk, tea and coffee without sugar, but with glycerine in its place if desired.

More or less variation can be allowed from this in mild cases, and in severe cases more rigor may be required, although it is difficult to hold a patient to a diet more rigid than the above.

It is well known that in many cases of diabetes severe mental strain, sorrow or shock, seems to be the exciting cause of the disease. I have observed this so often that I carefully inquire in all cases for it. I am sure that in a large proportion of the cases that have come under my observation some such mental strain was present during the forming period of the disease. In the first of the cases here mentioned business difficulties, added to still more perplexing and worrying family cares, were present during the time when flesh and strength were most declining. In the second and third cases no such causes could be found. In the last two business trouble was coupled with family sorrow. In the fifth case the disease broke out just after the man's entire property had been lost in stock speculation. If any mental influence played a part in producing the disease in the fourth case it was sorrow.

In a very recent number of THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION Dr. Austin Flint, Jr., has published a list of cases of diabetes in which the disease had occurred in near blood-relations. The fourth case that I have described might be added to this list, as her mother also suffered from diabetes, and finally died from the effects of carbuncles which complicated it.

MEDICAL PROGRESS.

ATROPINE IN POISONING BY MORPHINE.—In the *Vratch*, No. 44, 1885, p. 733, DR. J. L. JAVORSKY, of Tashkent, records the case of a strongly built and generally healthy midwife, aged 33, who attempted to destroy herself by taking at 1 A.M. about 30 grains of acetate of morphine and half an ounce of tincture of opium, *Pharm. Rossicæ* (1:10). No nausea or vomiting occurred. She fell asleep and awoke about 8 A.M., looking very ill. When first seen by the author (at 9 A.M.,) she lay speechless in a comatose state, with irregular, slow, superficial breathing, extreme myosis, her jaws being firmly pressed together. A hypodermic injection of a fourth of a grain of apomorphine produced vomiting in fifteen minutes, after which the author succeeded in introducing into the patient's stomach about six ounces of strong coffee, with a large quantity of tannin. The patient's state however, steadily grew worse. At 11 P.M. the author began to inject one-sixth of a grain of sulphate of atrophine every fifteen or thirty minutes. Exactly one grain of the alkaloid was used up to 3 P.M. causing only a moderate mydriasis, but no improvement in the state of the patient, who lay now pulseless, breathing only five times a minute. In spite of the apparent hopelessness of the case, the author went on injecting atropine, alternating it now with injections of tincture of musk. And his energetic efforts were fully rewarded; about 9 P.M. the pulse became full, 90 a minute, and the breathing regular, 12 a minute At 11 P.M. the patient became conscious and asked for drink. Having passed a quiet night, she rose on the next morning free from any danger. The whole amount of atropine injected from 11 A.M. till 9 P.M. was 2.03 grains; that of tincture of musk, about 2 drachms. Dr. Javorsky thinks that his case strongly supports the theory of an antagonism between atropine and morphine (as upheld by Binz, Benzold, Henbach, etc., against Onsum, Camus, Bois, Knapstein, Dokhman, etc.). [Dr. R. Neale's *Medical Digest*, sect. 376:5, contains a series of cases of morphine-poisoning cured by atropine. In the *Voënno-Meditz. Jürnal*, August, 1877, Dr. Dobrokhotoff describes recovery after poisoning by 10 grains of morphine dissolved in 5 ounces of bitter almond-water; the patient, a weak woman, aged 24, was treated by atropine, administered both hypodermically and internally (altogether 2–5 grains), tincture of belladonna 30-drop doses, powder of musk in 1-gramme doses, etc. In the *Vratch. Vedomosti*, No. 27, 1883, p. 4162, Dr. Rodzewicz publishes a recovery after 8 grains of hydrochlorate of morphine, the treatment consisting in enemata of coffee-infusion, friction, electricity, wine, etc.—*Rep*].—*London Medical Record*, March 15, 1886.

SEPTIC AORTITIS.—At the meeting of the Pathological Society of London, on April 6, 1886, DR. F. CHARLEWOOD TURNER showed three specimens of septic aortitis, and a microscopic section from a fourth case. The first specimen showed the aorta extensively ulcerated, with undermining of the endarterium. This was obtained from a female, aged 62, who had aortic incompetence, with hypertrophy and dilatation of the left ventricle, and granular kidney. Microscopic section from one of the ulcers showed masses of micrococci in the deepest layer of the endarterium,

at the base of the ulcer. The second specimen showed massive fibrinous coagula in the arch of the aorta; this was from a case of burn, fatal on the twenty-fifth day, from suppuration and pyrexia. The third specimen was from a man who died of secondary hæmorrhage, from a wound of the left internal mammary artery. A fibrinous mass was found adherent to the aorta near the valves, with smaller fibrinous deposit on atheromatous elevations. A fourth case was mentioned, in which a similar lesion was found in a patient who died on the second day after primary amputation of the thigh. A microscopic section showed masses of leucocytes about the vasa vasis in the outer and middle coats, great swelling of the intima with corpuscular infiltration and exudation in the most superficial layer, and cloudy granular fibrin on the surface. The arterial lesion in all the cases was referred to the combined effect of structural disease and septic contamination of the blood, weakening the resistance of the tissues, and giving a grave character to the lesion. The difference in anatomical character between the lesion in the first case and in the other was attributed to the predominance of the former factor in the one case, and of the latter factor in the other. The vascular lesion in this specimen was regarded as indicating the starting of similar lesions of the pulmonary artery or venous trunks, and of thrombotic lesions of smaller vessels, associated with severe endocarditis.—*British Medical Journal*, April 10, 1886.

THE ASSIMILATION OF IRON.—Much difference of opinion has existed as to the method of action of ferruginous tonics. That their use is of advantage is a matter of daily observation, but many difficulties arise when we attempt to explain their mode of assimilation, for, apart from the fact that nearly if not quite all the iron so ingested is recoverable in the feces, we are met with the equally perplexing fact that iron salts when introduced into the blood stream cause toxic symptoms analogous to those induced by arsenic.

It has long been recognized that the iron entering into our structure is not normally derived from any inorganic salt, but from one or more complex iron-containing compounds existing in our food, and to be found typically, of course, in milk. BUNGE, in the *Zeitschrift für physiologische Chemie* for 1885, records the extraction, from milk and from egg yolk, of this iron-containing organic compound, to which he gives the name of hæmatogen.

Hæmatogen markedly resembles hæmoglobin in molecular composition, though a still more close molecular resemblance may be traced between it and nuclein, if we ignore the absence of iron in the latter body. Bunge has extracted hæmatogen from the cereals and leguminosæ, and states very distinctly that our food "contains no inorganic iron combination, the iron present being in the form of complex organic compounds, which are built up by the vital activity of the plant; that in these forms the iron is absorbed and assimilated; and that from them the hæmoglobin originates."

Starting from these premises, Bunge's explanation of the value of inorganic iron salts in chlorosis is very interesting. The catarrhal state of the alimentary tract present in this condition favors a process of fermentation which induces the decomposition of hæmatogen. But when the inorganic iron salts are present, the sulphites evolved in decomposition attack such salts, with the result of sparing the hæmatogen. Confirmatory to this theory is the recent method of treatment of chlorosis, in which the disinfection of the digestive tract by the administration of small antiseptic doses of hydrochloric acid, after meals, has been found more efficient than the use of iron.—*Medical News*, April 17, 1886.

IN THE ACTIVE INGREDIENTS OF ERGOT.—In *The Practitioner*, of December, 1885, PROFESSOR RUDOLPH KOBERT, records a series of experiments with the active principles of ergot. Experiments with ergotinic acid, internally and hypodermically, on pregnant bitches, rabbits, cats, and sheep, show that it possessed no ecbolic power. Hence all aqueous extracts (as water dissolves only the ergotinic acid) are worthless. The *extractum secalis cornuti* of the German Pharmacopœia is an aqueous extract, and consequently is inert. Cornutine, is not to be confounded with the ergotinine of Tanret, as the latter is inert, produces uterine contractions both in animals that are pregnant and in those not. Sphacelinic acid is insoluble in water, and must be given in an emulsion. In cats and dogs it provoked powerful labor-pains, followed rapidly by the birth of the fœtus. From this it is seen that in the ecbolic action caused by ergot both cornutine and sphacelinic acid take part. The latter acts directly on the uterus, while the former influences directly the centre for the uterine contractions, situated in the spinal cord. Professor Kobert had requested Gehe & Co., of Dresden to prepare an extract that contained both these active principles, which is called "extractum secalis cornuti cornutino-sphacelicum Kobert." It does not keep well for longer than six months, but Professor Kobert emphasizes the statement that neither ergot itself, nor any of the numerous commercial European, and American, preparations that he has examined, retains their therapeutic powers for more than twelve months.—*New York Medical Journal*, April 17, 1886.

BENZOATE OF COCAINE.—SEÑOR ALFREDO BIGNON, in a paper read before the Lima Academy of Medicine, and published in *La Cronica Médica*, strongly recommends the employment of the benzoate of cocaine in preference to the hydrochlorate (the salt most commonly used), and to the salicylate and borate, with which he has also made experiments. He finds that the benzoate is extremely soluble, easily crystallizable, and retains the characteristic odor of coca itself. The antiseptic qualities of benzoic acid also are an additional advantage. Amongst other experiments, the anæsthetic effects of a 20 per cent. solution of the benzoate were compared with those of a similar solution of the hydrochlorate in a case of epithelioma of the tongue, with the result that the effect of the former salt persisted for a much longer time than that of the latter.—*Lancet*, Feb. 20, 1886.

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THE EDITOR OF THIS JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the writer's full name and address, although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

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THE PRESIDENT'S ADDRESS.

The address of PRESIDENT BRODIE will be read with more than usual interest by those members of the Association who believe, despite certain recent pessimistic uttterances to the contrary, that the American Medical Association has been and still is a great power for good in this country. In the matter of medical education it must be regarded as a significant fact that one of the earliest reports issued by a Committee of the Association was one "Upon a Uniform and Elevated Standard of the Requirements for the degree of Doctor of Medicine," and that in every college in which the recommendations of this report have been adopted the results have been satisfactory; and these colleges are now looked upon as the leading colleges in the country. The first steps taken in this country towards the requirement of preliminary education for the study of medicine were taken by the American Medical Association. The first step towards the separation of the powers teaching and licensing was taken by the Association, and there is now not a State in the Union in which the medical men are opposed to such separation. And it was a committee of the Association that first defined, on a basis of religion and morality, the duties and rights of the physician.

Certain members of the profession who, for financial reasons, have repudiated the defined duties of physicians, have sought to shield themselves by saying that gentlemen require no written rules for behavior, and attempt to fortify their position by saying that there is no Code in England. That there is a Code of Ethics in England, and that there is a positive need for one may be seen by referring to almost any current number of the *British Medical Journal*. That it is a necessity in this country is seen by the fact that every State Medical Society in this country, with one exception, has embodied the Code of Ethics of the American Medical Association, or an allegiance to its principles, in its constitution; and in the one exception it was repudiated by a minority meeting. The citizen may say that the gentleman has no need for a written criminal code; but the criminal code is made for the protection of good citizens as much as for the punishment of the bad. In everyday life it is the criminal class, the anarchist, communist and socialist, who complain of the stringency of the laws—not good citizens, who recognize and fulfil the duties of man to man.

The outspoken assertions of the enemies of the Association, some of whom are members of it, that the day of its usefulness has past, that it has never been a scientific body, and that it was never intended as such, is easily disproved by consulting the volumes of its Transactions, and, Dr. Brodie's few selections from the titles of the papers that have been published in those Transactions is very apropos just now. That such assertions have been made seems to show positive ignorance of medical literature on the part of some members of the profession. There is scarcely a subject in the whole range of medical literature that has not at some time been treated of in papers published in the Transactions of the Association. So far from the day of its usefulness being past we may say that the sun of its usefulness has by no means reached its noon. The medical profession of this country will not be content to sit and see a few men arrogate to themselves all the learning, all the prestige, and everything else which goes to make the complete professional man. Our country, our customs, and institutions are too democratic to allow a few men to style themselves "representative."

The American Medical Association is entitled to the hearty support of every member of the profession who has the good of the profession at heart—every one, in short, who has entered upon the study and practice of medicine as a science, an art, a great and noble calling. As to those who have come in to make it a trade, the Association is better off without them.

REFLEX ACTION AND INHIBITION.

Reflex action, says Lauder Brunton, is the effect produced by an impression made upon a sensory nerve, transmitted by that nerve to a nerve-centre, and reflected or thrown back along a motor nerve in much the same way as we may imagine a string run-

ning over a pulley and transmitted in a different direction by the other end to produce a certain effect. And if we suppose the further end of the string to be divided into several strands, each of which is attached to a different object, and which may be, separately or together, affected by a pull on the nearer end of the string, we will have a still more clear idea of reflex action, since the impression on the sensory nerve may bring about various results, depending on the strength of the impression and the efferent nerve channel along which it is sent back by the nerve-centre. While it is to be remembered that a reflex movement is one caused by the stimulation of an afferent sensory nerve, it should also be remembered that voluntary activity is excluded in a purely reflex act. Again, we must judge of what is going on in an afferent nerve by the effect produced in a central nervous organ, in the way of exciting or modifying automatic or reflex action, or in affecting consciousness; and here we are met with the difficulty of clearly distinguishing between the events belonging solely to the afferent nerve, and those of the central organ. We know that an afferent impulse passing along an afferent nerve may give rise to reflex movements,or may modify existing reflex or automatic actions, or may produce both effects at the same time.

The mistake of supposing that a sensory nerve is one which bears a *sensation* to a central organ should not be made. An impression borne along a sensory nerve may affect the nutrition of a tissue, or it may produce voluntary or involuntary motion—affect a voluntary or involuntary muscle. Under the involuntary muscles which may be affected may be classed the muscular fibres of the blood-vessels, and movements caused in them produce the vascular changes (which may be greatly influenced by impressions made upon sensory nerves) which play an important part in nutrition and secretion. We know that stimulation of a nerve—and we may even say one fibre of a nerve—may cause reflex action under certain circumstances, and under other conditions give rise only to a sensation; and thus it is that an afferent nerve is frequently spoken of as a sensory nerve. It has been thought proper by some to classify the centripetal or afferent nerves as sensory, nerves of special sense, and reflex or excito-motor nerves. And the division is perfectly proper, if we remember that no sharp line of distinction can be drawn in the way of supposing that the stimulation of a nerve of one class always produces a given and the same effect.

These considerations lead us up to the subject of transference of impressions. We have spoken of the cord passed over the pulley: let us now imagine that the further side of this cord is divided into several strands, the nearer side being single, and as we may have several results from pulling on the nearer side by reason of the subdivisions at the further end, so we may have a subdivision of the nearer side of the cord, while the further end is single; it is apparent that we can produce the same result by traction on any one of the strands of the further side. Or we may illustrate this by taking the example of the telephone bell and the transmitter. The person at the other end of the wire turns the crank and our bell rings; we place the transmitter to the ear, and though the other person may continue to turn the crank our bell no longer rings, though we receive in the ear the peculiar ticking sensation indicating that the crank is being turned. Irritation of the uterine nerves by the presence of a fœtus may cause vomiting, or it may cause paralysis, as in a case reported by Jolly about a year ago, which, while he attributes it to an hysterical condition, was nevertheless caused by centripetal irritation. The sphincter of the neck of the bladder and the muscular walls of the organ may be reflexly excited to contraction, and there may be reflex incontinence or reflex retention. The presence of ascarides in the rectum may cause incontinence of urine, and so long as the ascarides remain we may vainly employ drugs for the relief of the incontinence. About ten years ago Mr. Teevan reported a most interesting case of incontinence which obstinately resisted all treatment until a fistula *in ano* was cured.

In the consideration of the subject of reflex action it is of importance to remember that the sympathetic ganglia may act as independent reflex centres. Pigmentation may be excited reflexly by cutaneous irritation in the frog when the brain and cord have been destroyed. The uterus possesses within itself all the elements for a reflex arc, as shown by the fact that it can act independently by expelling the fœtus after the death of the mother. A very important contribution to this subject was the paper read by Dr. Woakes at the London meeting of the International Congress, in which he shows both the independence of at least the vaso-motor portion of the sympathetic, and of its many connections with the cerebro-spinal system. He speaks of the inferior cervical ganglion as a correlating nerve centre; which must mean that it is a reflex centre. It is a well-known fact that in prize fights a blow on the neck will cause unconsciousness more quickly and with less injury than any other blow about the head. The explanation is that the shock to the cervical nerves is propagated to the inferior cervical ganglion, thence reflected to the vertebral artery as a wave of vessel-dilatation, this

wave is first appreciated in its peripheral branches, producing an instantaneous large accession of blood to them. This accession of blood in the internal auditory branch of the vertebral artery causes sudden tension of the intra-labyrinthian fluid and unconsciousness is the result.

We know that irritation of a sensory nerve will cause dilatation of the vessels in the part supplied by the nerve, and vascular contraction in other parts of the body. As a rule this takes place without affecting the action of the heart; but the irritation may be so strong, or applied so directly to certain nerves, that the heart is affected, as is the case when the fifth nerve is strongly irritated. The fumes of ammonia, strong acetic acid or chloroform when passed into the nostrils of a rabbit may suddenly and completely arrest the heart. Not without reason does Dr. Brunton attribute the numerous deaths which have occurred when teeth were being extracted under chloroform to an arrest of the heart by irritation of the dental branches of the fifth nerve. In the waking condition the irritative effect on the heart from the extraction of a tooth is counteracted by the coincident contraction of the arterioles all over the body; but under chloroform the two reflexes are not equally influenced by the drug, and the reflex action upon the heart may remain after that upon the vessels has ceased; in this case the heart stops because the blood drains away from the arteries into the veins—or to use the simile of Ludwig, the animal bleeds to death into its own veins.

Closely connected with this subject of reflex action is the phenomenon called inhibition. The inhibitory nerves may be defined as those nerves which modify, inhibit, or suppress a motor or secretory act already in progress (Landois); we may then say that inhibition is the modification or suppression, through nervous influence, of a motor or secretory act already in progress. Probably the most familiar example is the stoppage of the heart by a blow upon the belly, or a blow upon the intestine of the frog with the handle of the scalpel. This is nothing more than the suppression of the discharge of reflex action. But some of the examples given under reflex action are really examples of inhibition. It is only necessary to remember that a reflex act may be inhibited or augmented or that an augmented reflex action may be inhibited. We see augmented reflex action in some cases of hysteria inhibited by pressure on the ovaries—another example of suppression of the discharge of reflex action. There need be no especial difficulty in comprehending the subjects of reflex action and inhibition, though some physiologists have created sad confusion by unintelligible explanations.

DRUGGING IN THE DARK.

Such is the practice complained of by a correspondent of a contemporary, who finds that many physicians administer medicines in what seems to be a reckless and unscientific manner,—"Strychnine, arsenic, digitalis and aconite, are favorite remedies in all sorts of diseases." Used in this connection, we may very well object to the word *remedies;* in other respects we must agree with the complainant, adding that in America quinine seems to hold a high place in the list of drugs that are prescribed when there is some little doubt as to the diagnosis. "Pills and mixtures containing many poisonous drugs are commonly prescribed, even when the practitioner is quite in the dark as to what the cause of the disease may be. With some, the rule is, when the cause is unknown, to mix a great many poisonous stuffs, in the hope that one of them may hit the enemy. A wiser and safer course would be, when the diagnosis is uncertain, to give, in the name of remedy, something that cannot possibly injure the patient."

We are not at present prepared to say whether or not this is a growing evil; though it is to be hoped that it is not. Without doubt it is due to a great extent to a habit of making "snap" diagnoses, or of making no diagnosis at all. When a diagnosis cannot be arrived at immediately, a physician will often prescribe what he thinks will do no harm, with the hope that he can get at the truth of the matter when he next sees the patient. This may be due to a suspicion that the patient thinks that he should be taking medicine; since the idea of taking medicine whenever possible is deeply rooted in the minds of the laity, as shown by the enormous amounts of patent medicines used. In very many cases, however, a certain combination of drugs is given because some of the symptoms point to a particular affection, and this combination has been prescribed for that affection by a teacher or some eminent physician. This is evinced by the books containing formulæ, compilations of favorite prescriptions, and ready reference books which seem to find such a ready sale. It is often very difficult to convince a patient that he does not need medicine; but it is just as important that the physician should know when *not* to give medicine as when to give it. Possibly more "drugging in the dark" is done in renal and cardiac affections than in any others, on account of an apparent obscurity connected with them. Much of this is due to the fact that the urine is often improperly examined, and frequently not examined at all. Much useless, or even harmful drugging would be done away with, if physicians would thoroughly acquaint

themselves with the principles and significance of arterial tension—increased and decreased. After all the whole matter is resolved into the one principle: Never give a dose of medicine without a clear and definite object in view, and a definite idea of the result to be attained.

PROFESSOR WILLIAM S. FORBES.

DR. WILLIAM S. FORBES, for several years Demonstrator of Anatomy in the Jefferson Medical College of Philadelphia, was appointed, at the meeting of the Board of Trustees held on April 26, to the Chair of Anatomy, rendered vacant by the resignation of Professor William H. Pancoast. Apart from the eminent fitness of Dr. Forbes for the position, his appointment is a just rebuke to those who, about three years ago, instigated against him a most malicious prosecution and persecution. Since he was appointed as Demonstrator of Anatomy in the Jefferson College Dr. Forbes has held a high rank as a teacher of anatomy, and added to this his personal popularity with students is very great. He brings to his new position the triple qualification of a thorough anatomist, a good teacher, and a surgeon of most excellent judgment.

SOCIETY PROCEEDINGS.

AMERICAN SURGICAL ASSOCIATION.

Seventh Annual Session, held in the Reading-room of the Army Medical Museum, at Washington, April 28, 29, 30 and May 1, 1886.

THURSDAY, APRIL 28—MORNING SESSION.

The meeting was called to order by THE PRESIDENT, MOSES GUNN, M.D., of Chicago, who delivered his Annual Address, of which the following is an abstract:

Custom, if not organic law, requires the President to open the proceedings by a more or less formal address. My immediate predecessor, in his address a year since, suggested that either a résumé of the progress of surgery for the previous year, or some special scientific subject, should constitute the subject matter of the President's address. I propose to comply with the spirit of this suggestion, and shall indulge in a few thoughts on

CERTAIN POINTS IN THE PHYSIOLOGY AND SURGERY OF MOTOR, SENSORY AND MOTO-SENSORY OR COMPOUND NERVES.

Previous to the investigations of Magendi and Bell, no clearly defined effort had been made to differentiate the motor and sensory nerves. It remained for these investigators to clearly establish the fact of the motor qualities of the anterior roots and the sensory qualities of the posterior roots. With this also came the idea that this difference was intrinsic, due to peculiarities in the anatomical and physiological organization of the nerve fibres. This appears to have been the idea generally entertained. Is this a fact, or is the difference to be found in extrinsic conditions, viz., the anatomical organization at either end of the nerve, the nerve to trunk being simply a conductor of a form of force? Upon the facts of the case depends the possibility of satisfactory results in the section and physiological reunion of divided compound nerves and the grafting of one compound nerve upon another where there has been so great a loss of the trunk of the nerve as not to permit the approximation of the distal and proximal portions of that nerve. Success in achieving satisfactory results by such operations or a uniform lack of success must afford a tolerably reliable answer to these interrogatories, much more reliable than experiments on some of the inferior animals. Experiments on animals require severe scrutiny, or they may mislead. Some of the experiments on animals were then referred to. Philipeau and Vulpain divided in dogs the pneumogastric and sublingual nerves, and united the central end of the pneumogastric with the distal end of the sublingual. They also divided the lingual branch of the fifth nerve and the sub-lingual, uniting the central end of the lingual branch of the fifth nerve to the peripheral end of the sub-lingual and tearing out the central end of the sub-lingual. The result of these experiments was that after a time motion and sensation was restored. Other similar experiments were cited.

In April, 1880, Dr. E. P. Davis made for the speaker the following experimental operation. Under an anæsthetic, the axillary plexus was exposed. The median was severed after its bifurcation and also the ulner and radial. The outer head of the median was united to the ulnar. The inner head of the median was united to the radial in the same way. At the end of ten days, the dressing was removed and complete paralysis of motion and of sensation found. In four weeks this began to disappear and later a perfect condition of motion and sensation was observed. By this operation the distal portion of the median was left entirely without nervous supply, and yet there was no paralysis of muscles or integument supplied by this portion of the nerve. Latter investigation showed that in the dog and certain other animals there is an anastamosis of fibres between different nerves, forming an indirect route for the conduction of nervous force.

Nerve suture in man has become a recognized operation both as a secondary and primary procedure. It must be concluded from experiments that motor, sensory and trophic powers depend not on the nerve itself, nor on a difference of nerve force, but on the organism at the end of the nerve itself. Professor Stephani is reported to have succeeded four times in uniting the distal end of the median with the proximal end of the musculo-spiral, and the distal end of the latter with the proximal end of the former. Immediately following the operation was

complete paralysis and atrophy, but in the course of six or eight months, there was not only restoration of muscular power, but harmony of action to an extent sufficient to permit the animal to run, but perfect extending power was not realized.

The intergrafting of a section of a nerve of an inferior animal to replace extensive loss of nerve structure will probably be of too uncertain success to constitute a standard operation, but can the grafting of the distal end of a nerve in such a case upon the side of or into the trunk of an adjacent nerve secure to it a supply of nerve force? Experiments made by Kawa would indicate that such might be the case. To establish this point experiments on dogs are valueless on account of the free anastamosis. We must look for the solution of this question to the rare opportunities met with in the course of surgical practice to institute experimental operations on man. A case has been reported by Després, where there was such extensive destruction of the median nerve as to preclude the possibility of approximating its ends. He therefore engrafted the distal end of the median with the trunk of the ulnar. Fifty-four days after the operation the functions of the parts supplied with the medial nerve were partially restored.

On December 1, the speaker had occasion to resect the right ulnar nerve in the removal of a neuroma in a male patient aged thirty-six years. The distal portion of the divided nerve was grafted to the trunk of the median. The sheath of the median was removed and the broadly chamfered end of the ulnar laid in contact with it and secured by three fine catgut sutures. Immediately after the operation there was complete paralysis of the parts supplied by the ulnar. On the eighteenth day there was a slight return of sensation along the ulnar side of the ring finger and there seemed to be some contraction of the flexor carpi ulnaris. Four months after operation, the patient could feel a slight touch on the ring finger, no sensation to touch in the little finger, but an increased warmth in it. He can adduct the hand with considerable vigor, but as yet has no power over the terminal phalanges.

The positive evidence which these two cases furnish at so early a date, warrants further effort in this direction, and corroborates the other evidence of the correctness of the postulate, that the function of a given nerve depends entirely upon the machinery at its ends and not upon any intrinsic quality.

Favored by your kindness manifested one year ago, it is my duty to preside over your deliberations in this seventh session of the American Surgical Association. We have come together to make and renew friendships and to impart to one another and to the surgical world the results of our experience, investigation and thought.

As to the new friendships which shall ensue, let us hope that they will equal the old; and in the renewal of the old, let the grip be firmer and the heart still warmer; while in the spark which shall fly from the clash of thought let there be only the fire which purifies the subject, enhances esteem and cements friendship. So shall our discussions be honorable to ourselves and profitable to surgical science.

A proposition to form a

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was discussed, and referred to a committee of three to report Thursday morning, the committee consisting of Drs. J. Ewing Mears, Wm. T. Briggs and Christopher Johnston.

AFTERNOON SESSION.

DR. CHRISTOPHER JOHNSTON, of Baltimore, read a paper entitled

DIAGNOSTITIAL LAPARATOMY.

This operation is as ancient as our race, but in early times was always practiced on the cadaver. The first operation on the living subject was probably performed about the year 1600. The rapid advance of abdominal surgery now demands the attentive consideration of surgeons, and requires the expression of opinion as to the position of the line limiting interference in certain classes of cases. The question in abdominal lesions arises, how shall the seat of the pathological change be reached? The answer is laparotomy, which makes the diagnosis positive in cases of doubt and is preliminary to other operations which may be required. If the surgeon has no right to refuse to give aid to a fellow creature becoming asphyxiated from obstruction in the air passage, has he the option of refraining from surgical interference when the prima viæ are obstructed in their functions? The answer to this question hangs first upon the diagnosis, sometimes upon the record of the past, and not infrequently upon the wise boldness of the surgeon. The propositions then are, first, that for abdominal surgical affections all possible operations ought to be attempted after the establishment of a precise diagnosis; and second, that when a just diagnosis cannot otherwise be reached it may and ought to be eked out by an exploratory incision. The mortality of abdominal incision without complication is low. A great consecutive mortality following a surgical procedure in no wise determines the want of value of the operation, while most cases recovering are to be considered a certain gain.

The record with regard to diagnostitial laparotomy is very brief, for as a rule, when the surgeon approaches the case the diagnosis is already nearly positive. The gravity of the operation is largely determined by the time at which it is performed. The abdominal incision intentionally diagnostitial is fraught with so little comparative ill consequence that its high value or necessity may be fairly claimed as an established and proper aid to diagnosis. Of all operations involving laparotomy, those involving the uterus and its appendages probably fill the largest space. Next we have those involving the alimentary tract.

Besides being a justifiable operation, abdominal incision becomes the bounden duty of the surgeon in a great variety of instances.

When is exploratory laparotomy called for? It should be stated that to a certain extent every laparotomy is diagnostitial. Without establishing unnecessary groups, two great classes in which exploratory

laparotomy is demanded or permissible are to be recognized. First, all sorts of cases in which the diagnosis cannot be made without its aid. Second, all those cases in which, a diagnosis having been made, no definite line of operation can be marked out and no abandonment of active measures be entertained or justified. Laparotomy holds the key in all cases of doubt as to what is the matter and what is to be done. In intestinal cases, the early operations are those which save life the oftenest, but abandonment ought not necessarily to follow delay in invoking the surgeon's aid.

DR. A. VANDERVEER, of Albany, said that there was no doubt that experience showed us that simple incised wounds of the abdomen without injury to the abdominal organs will usually heal without difficulty, even if left to themselves. The mortality is very slight indeed. Even when the injury is more serious recovery often follows. The cases which give anxiety are those in which the bowel is injured and its contents escape into the abdominal cavity. These die inevitably if nothing is done. In these cases laparotomy should be performed. This operation is often opposed by the friends of the patient and often by the attending physician, and much is to be done in the direction of teaching the profession and the public the importance of early operation in these cases. Cases were cited of gunshot injuries of the intestine and of rupture of the intestine produced by external violence in which the operation might have saved life if it had been permitted by the friends of the patient. The operation, as a rule, will not be allowed until the patient is in collapse, and it is then too late. The masses must be educated to the necessity of laparotomy in the cases referred to. This operation should be done more frequently in the future than in the past. As regards the mode of operation, the incision in the median line is by far the best. In some cases it would be impossible to reach the seat of disease by any other incision. In the closing of the wound some recommend several lines of sutures uniting the different layers of tissue separately. He does not believe that this is any advance on the old method of using sutures including all the layers of tissue. Where there is great distension of the bowel in intussusception the discovery of the seat of trouble is greatly facilitated by a procedure which he had seen Tait adopt in such a case. He opened the distended coil of intestine, permitted the gas to escape, and then closed the opening with sutures.

DR. J. EWING MEARS, of Philadelphia, in considering diagnostitial laparotomy, would arrange the subject in this manner: First, external manipulation; second, internal examination where this is possible; third, aspiration; and finally laparotomy. Laparotomy is much the most serious of all these methods. In this discussion the subject of laparotomy as a means of treatment does not call for consideration. The more experience he gained the greater was his conviction that the abdominal cavity should not be opened without due consideration. Death is a severe penalty to pay for the perfection of the diagnosis. The tendency at the present time seems to be in favor of opening the abdominal cavity rather than cultivating that essential skill by which the diagnosis may often be made without resorting to operation. Tait's assertion that opening of the abdominal cavity is a matter of very little consequence has led many of the younger members of the profession to perform this operation without due consideration. Having exhausted other methods of diagnosis, he thought that if the patient's life depends upon it, we should open the abdomen. In intestinal obstruction the abdomen should be opened; many lives have been lost by want of courage on the part of the surgeon. There is no question as to the duty of the surgeon in the case of gunshot wounds of the intestines.

DR. CHARLES T. PARKES, of Chicago, said that the paper insists upon the necessity of exhausting all other methods of diagnosis before resorting to laparotomy. He thought that the size of the incision makes very little difference so far as the final recovery is concerned, but where the incision extends above the umbilicus, recovery is slower and attended with more inconvenience. In the cases of laparotomy which he had seen where post-mortem followed, there was no evidence that the abdominal incision had anything to do with the fatal issue. In regard to the operation in cases of intestinal obstruction where the exhaustion is extreme, several years ago, he was called to see a case of nine days' standing. The patient was in a state of extreme collapse, was put to sleep and the abdomen opened. A small cyst was felt immediately beneath the fingers. It ruptured and a quantity of offensive pus escaped into the abdominal cavity. This patient recovered. The abdominal opening should be made in the median line. He thought that he had seen cases in which death has followed from the fact that the incision was not thus made, the surgeon being satisfied with enlarging the original wound. In regard to closure of the wound, he considered the simple suture going through all the tissues the best. Where there is much distension of the intestine the bowel should be opened. He did not favor the use of the exploratory needle. In two instances he had seen extravasation of fecal matter through such punctures.

DR. MCLANE TIFFANY, of Baltimore, referred to four cases of what he believed to be intestinal obstruction. Two refused operation, and both of these died; two accepted, and one of these recovered. The case that died was that of a woman aged 73 in whom the obstruction had lasted seven days. The intestine was enormously distended, and in the examination ruptured with the escape of the gas. After this it was extremely easy to find the seat of constriction. He thought that shock would be less if the intestine is emptied. He agreed with the speaker as to the great value of laparotomy as a diagnostitial operation. It is not possible for any human being to recognize through the abdominal walls the manifold conditions of the organs present. In regard to pistol wounds of the abdomen, it frequently happens that the intestines escape injury, and in these cases it is a question when the operation should be done. The opening of the abdomen will probably not do much harm. It is also very desirable that there should

be in hospitals special rooms devoted exclusively to this class of operations.

Dr. J. Ford Thompson, of Washington, reported two cases of laparotomy for the purpose of diagnosis. A woman aged 35 years had the history of an abdominal tumor lasting for several years. It presented the appearances of an ordinary ovarian tumor with the exception that it had two sinuses communicating externally. After frequent examinations by various surgeons it was decided to make an exploratory operation. One of the sinuses was traced back to the peritoneum without reaching any satisfactory explanation of the tumor. The peritoneum was then opened and the finger introduced, but no tumor in the cavity could be felt. Towards the abdominal wall a mass apparently imbedded in the tissues could be distinguished. The wound was closed and the patient recovered from the operation. The patient subsequently died, and the post-mortem showed that the tumor was an enlarged spleen which had fallen down below the umbilicus and become attached to the abdominal wall.

The second case was one of apparently freely movable tumor in the right hypochondriac region. It proved to be a carcinoma involving the transverse colon. There was also an attachment of the growth to the liver. The abdomen was closed, the patient recovered from the operation, and is still living.

Dr. Johnston, in closing the discussion, said that there is a certain amount of hesitancy on the part of surgeons in regard to operating in cases of abdominal injury, on account of the people and on account of juries. To overcome these objections it is necessary to educate the public to the true state of affairs. In those cases where the bowel is opened laparotomy leads us to the seat of disease, and if anything can be done we are then able to do it. He was happy to find his opinions supported by so many of the able minds of the profession.

Thursday, April 29—Second Day.

Morning Session.

The President in the Chair.

Dr. Harold C. Ernst, of Jamaica Plains, Mass., read a paper entitled

A consideration of the bacteria of surgical diseases.

After an extended description of the various bacteria met with in wounds, chronic abscesses, erysipelas and other surgical affections, and an account of numerous experiments on animals, with an exhibition of specimens in culture mediums and under the microscope, the author presented the following conclusions:

1. The experiments conducted over so long a time with the successful inoculation at the end of that time, indicate very plainly the retention of pathogenic powers of these organisms indefinitely.

2. Their permanence of form is also well established.

3. In order to obtain either a modification of their pathognomonic forms or of their morphological properties—if this is possible at all, some different methods of investigation must be used than those which have hitherto been employed.

4. The probabilities indicate that work in this direction is not likely to be successful.

5. So far as the experiments go they tend to show that no form of the suppurative process in man is unattended by bacteria, and that the inoculation in the lower animals of pure cultures of these bacteria is followed by more or less acute and extensive suppuration.

6. The above conclusion is supported by the evidence of all workers in this field of research.

7. That a number of different clinical phenomena may be produced by the same organism, all of these phenomena, however, coming under the general head of the inflammatory and suppurative processes.

8. That the difference in the results produced by the same micro-organism in different individuals depends upon influences outside of the bacteria themselves.

9. That these differences are the result of differences in the amount of the infectious material received into the system, and of the locality or lesions by which it gains access, and also by variations in the individual condition—the personal equation being a very large factor in making up the sum of any results in bacteriological work.

Dr. S. W. Gross, of Philadelphia, said that the observations made by Dr. Ernst confirm those made by other observers, showing very conclusively that the suppurative processes are dependent upon vegetable organisms. The most interesting part of the paper is that which relates to chronic suppuration. The author has been, he thinks, the first to show that chronic suppuration is due to the same micrococci as the acute form.

Dr. J. S. Billings, of Washington, said that a mere verbal statement of the difficulties which attend these experiments gives no definite idea of the difficulties encountered in this work. It is only by personal experience that they are learned. The methods now employed are much more satisfactory than those in use some twenty years ago. One of the difficulties in considering the probable relation between cause and effect in this work is that there seems to be no relation between the number of micrococci present and the effect produced. A second difficulty is that we are by no means sure of the specific differences between these various forms of microscopical organisms. As we cultivate bacteria in different media we find a change in their form. It is perhaps possible that they may gradually change by alteration of the medium, of its chemical composition or of its temperature. In connection with this subject, a study of the chemical conditions under which these organisms exist is necessary. It is very desirable that the practical surgeon should have at his disposal the means of determining the presence of these organisms in any given case.

Dr. N. Senn, of Milwaukee, said that he was in full accord with the conclusions of Dr. Ernst, and did not intend to criticise what he had said. He desired to say a few words in regard to the conditions

which predispose to the action of germs introduced into the body. The object of the surgeon should be, in the first place, to prevent the introduction of these germs; and in the second place, to secure inocuity to the infection by preventing the occurrence of predisposing causes. The first predisposing condition is found in an unusual arrangement of the capillary circulation. This is well illustrated in osteo-myelitis. In this affection the germs are found in greatest abundance in those situations where the anatomical relations of the vessels predispose to engorgement and localization of the microbes, this is in the large vessels about the centres of ossification in the epiphyses of bones. The second predisposing influence is traumatism. The germs of osteo-myelitis may be present in the body for a long time and produce no effects until the occurrence of traumatism, as a fracture, favors the localization of the microbes.

DR. DAVID PRINCE, of Jacksonville, Ill., exhibited a diagram and described a form of room where

A STERILIZED ATMOSPHERE

could be secured for the patient by means of air treated with corrosive sublimate and forced through a tube opening immediately above the seat of operation.

The report of the committee appointed to consider the proposition for the organization of a

CONGRESS OF AMERICAN PHYSICIANS AND SURGEONS,

offered at the meeting of Wednesday by DR. C. H. MASTIN, of Mobile, was called for. The following is an outline of the main points of the proposition: In view of the fact that there are a number of special medical organizations now in existence in the United States, each having for its aim the advancement of the special department of medicine for which it was organized, and since the members of the said special societies are the representatives of the profession in America, many of whom are at the same time members of several of these special societies, attendance at the meetings required separate trips from home, often with much loss of time. Therefore it appears necessary that some arrangement should be made with the different societies as to an uniform place and time of meeting.

The plan proposed is to unite the following named Associations into a Congress to be called "A Congress of American Physicians and Surgeons:" The American Surgical Association, the American Ophthalmological Association, American Otological Association, American Neurological Association, American Laryngological Association, American Gynæcological Association, American Dermatological Association, American Climatological Association, and the American Clinical and Pathological Association. The plan of organization embodies the following: Each society is to elect its own officers; hold its own sessions apart from the others at the time and place of meeting; publish its own transactions and do all other acts which by virtue of its constitution and by-laws it has the inherent right to do, thus preserving its own autonomy.

The Congress to be composed of these special societies when in convention and its meetings to be held in the City of Washington; the constitution and by-laws of the Congress to be formed by a committee of like number from each special society, the opening session of each annual meeting of the Congress to be devoted to such general business as may pertain to the interests of the Association as a whole. The Congress being presided over by a President elected annually and who must deliver an opening address on the first day of the session. The President to be chosen by a nominating committee of one from each special society; the Presidents of the special societies to be Ex-Officio Vice-Presidents of the Congress. Membership in the Congress is to be acquired only by virtue of fellowship in one or another of the special organizations. The other officers to be elected as determined upon by the convention in session.

We disclaim any intention of offering an obstacle or opposition to any other organization in America. We propose simply a plan of uniting into one great body the already existing special societies, and we do so from an honest conviction that such a union will prove of inestimable benefit to them individually and collectively.

The committee appointed to consider this proposition, reported that they viewed with great satisfaction the perfection of a plan through which the meeting of the above named societies at the same time in Washington may be accomplished, and recommended the adoption of a resolution that a committee of five be appointed to confer with committees from other special organizations to arrange details, and to report at the next annual meeting of the Association. The resolution was adopted.

THE PRESIDENT stated that he would name the committee on Friday.

AFTERNOON SESSION.

DR. N. SENN, of Milwaukee, read a paper entitled

THE SURGERY OF THE PANCREAS AS BASED UPON EXPERIMENTS AND CLINICAL RESEARCHES.

The following conclusions were presented:

1. Restoration of the continuity of the pancreatic duct does not take place after complete section of the pancreas.

2. Complete extirpation of the pancreas is invariably followed by death, produced either by the traumatism, or gangrene of the duodenum.

3. Partial excision of the pancreas for injury or disease is a feasible and justifiable surgical procedure.

4. Complete obstruction of the pancreatic duct, uncomplicated by pathological conditions of the parenchyma of the organ, never results in the formation of a cyst.

5. In simple obstruction of the pancreatic duct the pancreatic juice is removed by absorption.

6. Gradual atrophy of the pancreas from nutritive or degenerative changes of the secreting structures is not incompatible with health.

7. Physiological detachment of any portion of the pancreas is invariably followed by progressive degeneration of the glandular tissue.

8. Extravasation of pancreatic juice into the peritoneal cavity does not produce peritonitis.

9. Crushed or lacerated pancreatic tissue is removed by absorption, provided the site of operation remains aseptic.

10. Complete division of the pancreas by elastic constriction is never followed by restoration of interrupted anatomical continuities.

11. Limited detachment of the mesentery from the duodenum, as required in operations upon the pancreas, is not followed by gangrene of the bowel.

12. In all operations upon the head of the pancreas the physiological attachment of the peripheral portion of the gland should be maintained by preserving the integrity of the main pancreatic duct.

13. Partial excision of the splenic portion of the pancreas is indicated in cases of circumscribed abscess and malignant tumors, in all cases where the pathological product can be removed completely without danger of compromising pancreatic digestion or of inflicting additional injury upon important adjacent organs.

14. Ligation of the pancreas at the point or points of section should precede extirpation as a prophylactic measure against troublesome hæmorrhage and the extravastion of pancreatic juice into the peritoneal cavity.

15. The formation of external pancreatic fistula by abdominal section is indicated in the treatment of cysts, abscess, gangrene, and hæmorrhage of the pancreas due to local causes.

16. Abdominal section and lumbar drainage is indicated in cases of abscess or gangrene of the pancreas, where it is found impossible to establish an anterior abdominal fistula.

17. Through drainage is indicated in cases of abscess and gangrene of the pancreas with diffuse burrowing of pus in the retro-peritoneal space.

18. Removal of an impacted pancreatic calculus in the duodenal extremity of the duct of Wirsung by taxis or incision and extraction, should be practised in all cases where the common bile duct is compressed or obstructed by the calculus and death is threatened by cholæmia.

19. In such cases, the principal source of danger, extravasation of bile into the peritoneal cavity should be avoided by preliminary aspiration of the dilated bile ducts, accurate closure of the visceral wound with fine silk sutures and absolute physiological rest of the organs of digestion, during the time required in the healing of the visceral wound.

Dr. Chas. T. Parks, of Chicago, read a paper supplemental to his paper of last year, reporting

TWO CASES OF CHOLECYSTOTOMY,

both of which ended fatally.

Case 1, was that of a woman who had suffered with gall stones for six years. The attacks of colic occurred as frequently as every week. Operation was decided upon. The gall bladder was found contracted and reached with difficulty. Forty-three calculi were removed.

Case 2 was that of Mrs. H., who for the past two years had suffered with attacks of pain lasting four or five days of each week. There was jaundice and other symptoms of the obstruction of the flow of bile. There was enlargement of the liver. The operation showed that the gall bladder contained no calculi, but that the obstruction was caused by a body outside, which seemed to be an encysted calculus pressing on the duct. The gall bladder could not be found. The patient died within twenty-four hours, and the post mortem revealed the shrunken gall bladder with the induration, which contained a gall-stone, pressing on the duct.

Dr. W. H. Carmalt, of New Haven, Con., related a case in the same line with these reported by Dr. Parks. The patient, a woman 37 years of age, had suffered for several years with indefinite dragging sensations in the right hypochondriac region. This incapacitated her from performing her household duties. In 1883, she stated that she had been operated on in Berlin for gloating kidney, and in evidence showed a large scar in the lumbar region. She also stated that three weeks after operation, as a result of violent sneezing, the organ had become loosened. She went to him for the purpose of having the kidney removed. Examination showed the abdomen to be exceedingly pendulous. The tumor was rounded, and could be readily grasped between the fingers; it was very movable. It was decided, after keeping the woman under observation for some time, that the tumor should be removed. An incision was made just external to the recuts muscle over the tumor. When it was exposed, it was at once evident that it was not the kidney. Further examination showed it to be a dilated gall bladder. An aspirator was introduced, and four ounces of inspisated mucus drawn off. The needle revealed the presence of a hard body. Manipulation brought the gall stone up to the most accessible part of the bladder, and securing the gall bladder by two ligatures, he opened it and removed a stone as large as the end of his thumb. Four other calculi were found. After thorough cleansing the gall bladder was closed with a continuous cat-gut suture. The wound in the peritoneum was closed in the same way. The muscles were united by interrupted silk sutures, and a continuous catgut suture was used for the incision in the skin. The patient recovered without difficulty and is now able to attend to her duties, feeling better than for a long time.

The report of

A CASE SIMULATING AND BELIEVED TO BE ABDOMINAL PREGNANCY AT FULL TERM—LAPAROTOMY, CÆSARIAN SECTION, AND REMOVAL OF A LIVING CHILD WEIGHING SEVEN POUNDS,

by Dr. John S. Coleman, of Augusta, Georgia.

In the absence of the author, the paper was read by the Secretary.

On February 27, 1886, the writer was requested to see B. A., colored, primpara, twenty-four years old. The attending physician believed her to be the subject of extra-uterine pregnancy. She thought herself at the end of gestation, and for three days had suffered with pains which were quieted by the administration of laudanum. The entire abdomen was greatly distended, particularly in the upper portion. Vaginal examination showed procidentia, the os pro-

jecting three inches beyond the labia. The os was sufficiently patulous to permit the entrance of the index finger. Rectal examination gave negative results. Palpation and auscultation showed the position of the fœtus to be dorso-anterior and obliquely transverse. Placental bouffle could not be heard. The abdomen was so large and the fœtal heart sounds so distinct that the writer also concluded that the case was one of extra-uterine pregnancy. The patient was examined by a number of surgeons, who agreed in the diagnosis. The history and the symptoms indicated that the patient was at the full term of pregnancy, and it was decided that immediate surgical interference was imperative.

On March 31, the patient was operated upon. An incision six inches in length was made in the linea alba. The tumor exposed much resembled the pregnant uterus. The incision was extended above the umbilicus uterus, and it was positively determined that the case was one of uterine pregnancy. The uterus was drawn forward, and its anterior wall cut through. He had not conceived it possible for the uterine tissue to be prolonged from the epigastrium to three inches beyond the vaginal notch. A vigorous female child weighing seven or eight pounds was removed; the hemorrhage was not great; the placenta was removed without difficulty; the incision in the uterus was closed with deep and superficial catgut sutures; the peritoneum was closed with a continuous suture, and the abdominal wall with hair-lip pins and superficial sutures. Antiseptic precautions were adopted throughout the operation. Septicæmia developed—the patient living four days.

At the autopsy there was found no decided injection of the peritoneum; two moderate-sized clots were found on the peritoneum; the cavity contained neary a quart of bloody serum. The uterus was one-half its former size, measuring from fundus to externum twelve inches; the cervix measured six inches; the tound was found gaping throughout.

The author then gave an extended view of the literature of the subject, and related similar cases by various operators.

To the paper was appended a letter from Mr. Lawson Tait, endorsing the performance of abdominal section in the above case, and asserting his strong objections to operations looking to the breaking up of the fœtus. He thought that a preferable operation in the present case would have been the Porro operation. This would probably have been successful both as regards the mother and the child.

FOREIGN CORRESPONDENCE

LETTER FROM LONDON.

(FROM OUR OWN CORRESPONDENT.)

Another Lander Institute—The Peabody Industrial Buildings—Inquest on a Woman who died of Hydrophobia—The Wolf-bitten Russians.

Another Lander Institute has been opened in London, in which fifty-two machines are to be seen, the whole arrangements being under the charge of a medical man. The treatment is throughout perfectly painless. Gentleness is, as a rule, the last idea one associates with machines, weights, levers, and pulleys, but by Lander's mechanical methods it has been fully secured. Massage applied by human hands would at first sight appear to be superior, but experience is proving that the advantage rests with well-regulated machines. The hand of the rubber becomes tired, and thus there is an almost constant variation of force, whereas the mechanical power continues its gentle movement without other increase or diminution than those intentionally produced by altering the adjustment of weights. The passive exercises are arranged on a similar principle to that of the massage, and are worked by an engine. The patients work the active ones themselves. Some of the machines look odd enough in their action upon the human frame. That called "vibrating" is intended for shaking the various parts of the body. Shaking of the back between the shoulder-blades is to give a specific effect upon the action of the heart, making the contractions less frequent and more effective. Nervous palpitation is successfully treated in this way. The kneading machine is so arranged that the pressure of two rollers produces a kneading action. Cases of pain in the back are treated by means of a kind of couch, through the back of which two padded wheels roll along both sides of the spine. If necessary, one wheel can be raised higher than the other, and as with all the machines, the pressure can be adjusted to a nicety by the arrangement of the weights upon the lever. The friction-machine for the hands and feet resembles a miniature tread-mill. It is useful in cases of rheumatic affection in the extremities. There are machines for shampooing the legs and the arms, assisting defective circulation and developing the muscles. The saddle and side saddle are both passive, and are found efficient substitutes for horse exercise. Small india rubber hammers form of other machines the active portion for increasing the circulation inside and outside the scalp, or any portion of the body in which the muscles need stimulating. Sciatica has been cured, it is said, by applying these hammers to the region of the sciatic nerve. They can be raised or lowered so as to act upon any portion of the body.

From a recent report upon the cost and sanitary status of the Peabody Industrial Dwellings it appears that the average cost of the buildings erected by the trustees is £60 10s. 2d. per head, so that a family of four persons costs a capital sum of £242 to house, which is a much larger amount than is ordinarily expended by the speculating builder. As regards the acquisition of land, the trustees have been singularly fortunate, three sites having been sold to them by the Metropolitan Board of Works for a sum which leaves a clear loss of £235,808, or more than a quarter of a million to the ratepayers. Taking land and buildings together, a family of four persons costs £510 to house. A warning note is struck in the statistics of the mortality among the inhabitants of these dwellings. In the year 1884 the deaths per thousand of the total population of the Peabody

buildings were 19.10, as compared with 20.34, which was the London rate; but in 1885 the death-rate in the dwellings was actually one decimal point above the general rate of mortality in London, the figures being 19.60 in the Peabody buildings, and 16.59 for the whole of the metropolis. It would seem from these facts that, while the death-rate of London has declined steadily since 1876, the death-rate in these model dwellings has increased, since 1881, from 17.22 to 19.60 per thousand. It is considered that this increase is most probably due to the increased density of the population.

An inquest, which is likely to attract considerable attention in the medical world, was held in London on the body of an old woman who died of hydrophobia. Many cases of hydrophobia have been quoted in which, as far as any one knew, the deceased had never been bitten by a mad dog, but it was always possible that they might have been licked on some scratch or sore by a dog who was in an early stage of hydrophobia, or that they might have been slightly bitten, but had thought the matter of so little consequence that they did not mention it to anyone. In the present case the hypothesis is scarcely possible. The deceased had lodged for years in one house, and for months had not gone out. She had a dog to which she was very much attached. This dog is a very old one, being, it is said, seven or eight and twenty years of age. It, like its mistress, never went out of the house except into the back yard. It can never have escaped, for its mistress, who lodged up stairs, always carried it down, waited for it, and carried it up again. The dog has not been mad, and is still alive and in good health, and there is no sign of a wound, scratch or sore on the corpse by which the virus could have been communicated. A more perfect test case could hardly be imagined. The two medical men who attended the deceased in her last illness declare that it was a distinct and undoubted case of hydrophobia, but in that case the assumption that hydrophobia can start *de novo* without the intervention of a mad dog, appears almost inevitable. So important did the coroner consider the case that he has adjourned it until next month, in order that it might be seen whether the dog continued in good health until that time.

Another of the wolf-bitten Russians has died of hydrophobia whilst undergoing treatment on the Pasteur system to combat the development of the malady; and this unfortunate event, according to M. Rochefort—who entertains an unfavorable opinion of M. Pasteur and his theories—coupled with the other death, goes to prove that the inoculations made kill patients by communicating hydrophobia instead of preventing its appearance. As for the remainder of the Russian peasants who have left Paris for their own country, very likely, observes the *Intransigeant*, they will die when, or before, the get home, but the matter will be hushed up, or their deaths attributed to some other cause. When one reads criticisms of this kind one can well understand M. Pasteur's complaints about the attacks made on him in M. Rochefort's organ, and by certain members of the Paris municipality who share the antipathy that paper displays for him and his system. Whatever may be one's opinion concerning the value of the discovery he has made, it is quite certain that the distinguished savant has but one earnest desire, to benefit his species, and he ought not to be treated as a charlatan. As for his Russian patients, it is perhaps regretable, in the interest of science, that they were not kept, as he wished, another month or so in Paris under his personal inspection. During the present year forty-one cases of rabies have been reported in London, and one death from hydrophobia due to inoculation by dog bite. G. O. M.

DOMESTIC CORRESPONDENCE

CARBOLIC ACID INJECTIONS IN HÆMORRHOIDS AND CARBUNCLE.

To the Editor of the Journal:

Dear Sir:—Through the columns of The Journal permit me to place myself on record as the first to discover, and put in practice, the hypodermic administration of carbolic acid for the cure of hæmorrhoids, carbuncles, poisonous bites, small tumors, and foul and ill-conditioned ulcers.

In 1875 I made my first injections in hæmorrhoids, carbuncles and snake bites, with most wonderful success. I continued the treatment for six years with uniform and unvarying success; and thus having satisfied myself of the value of this treatment, in 1881 I read a paper on the subject before the Texas State Medical Association, then convened in the city of Waco, Texas. This paper was entitled "The Hypodermic Administration of Carbolic Acid for the Cure and Removal of Foul and Ill-Conditioned Ulcers, both Internally and Externally Situated, Poisonous Bites, Hæmorrhoids, Carbuncles, and Tumors."

The paper met with strong opposition and severe criticism from many prominent members of the Association. Dr. A. M. Douglas, a leading man in the profession of this State, warmly espoused the paper and moved that it be published in the proceedings of the Association, which was done. I also had the paper published in the *Medical and Surgical Reporter*, of Philadelphia.

Dr. Wilkerson, of Galveston, and Dr. Woods, of Toledo, Ohio, claim to have been the first to discover and adopt this mode of treatment for the cure of carbuncles. While I do not doubt for a moment the claims these gentlemen have set up, and do not doubt they made the discovery as claimed, yet in justice to myself I must most respectfully claim priority of discovery and application of treatment.

Dr. Atlee, some two years since, in the *Medical and Surgical Reporter*, in animadverting on my paper read before the State Medical Association, claimed that the same treatment was discovered and resorted to during the Crimean War. If such was the fact, I have yet authentically to hear of it.

In conclusion, I beg leave to say to the medical profession that after eleven years of constant practice I find it still not only the best, but the only absolute and *painless cure* of these exceedingly painful

affections. I further beg leave to say that carbolic acid, on account of its local anæsthetic effects, will, when applied to the cavity of an aching tooth, in a few minutes relieve pain. A bone felon can be lanced with almost no pain by first wetting it with carbolic acid. By wetting the gum around a tooth with the acid, the tooth can be extracted with almost no pain. I firmly believe at no very distant day carbolic acid will be *facile princeps* of conservative surgery. I fully intended to read a paper on this subject before the American Medical Association at its session in St. Louis, but circumstances over which I have no control have alone prevented me.

Very truly, N. B. KENNEDY, M.D.

Hillsboro, Texas, April 27, 1886.

THE SURGEON-GENERAL OF THE ARMY.

TO THE EDITOR OF THE JOURNAL:

Dear Sir:—Our British friends, who have, especially in recent months, manifested so kindly an interest in the medical profession of the United States, ought above all things to be accurate in their statements. We read on page 756 of the issue of the *British Medical Journal*, of April 17, 1886, in the announcement of the Fifty-fourth Annual Meeting of the British Medical Association, to be held at Brighton, August 10–13, 1886, that "An Address in Medicine will be delivered by Surgeon-General John S. Billings, M. D., Director-General United States Army Medical Department, Washington."

It is incomprehensible that a journal, which is the official organ of a great National Association, could have been misled as to the fact that the Surgeon-General of the United States Army is Brigadier-General Robert Murray, one of the most distinguished officers of a corps, which has more than one distinguished member, especially distinguished both as a physician and as a surgeon.

General Murray entered the army in 1846, was commissioned Assistant Surgeon-General on December 14, 1882, and has been Surgeon-General of the army since November 23, 1883. The official reports of the Surgeon-General's Office of the Army have all, since that time, been issued over his signature and by his act, and consequently a periodical of the character of the *British Medical Journal* ought not to have been ignorant of the personality of an officer of such prominence.

Dr. Billings was No. 44 on the roster of the Medical Corps, for January, 1886, and number 27 on the list of "Surgeons with the rank of Major," having only entered the service in 1862, and is on duty at the Medical Department as one of the six assistants (not Assistant Surgeon-General, this officer being Colonel Glover Perrin, another veteran practitioner, and surgeon of nearly forty years' service, not unknown to fame). The mis-statements in this case only deserve correction on account of the injustice done in ignoring an officer of the professional reputation of Surgeon-General Murray. ACCURACY.

NECROLOGY.

WILLIAM EDWARD SAUNDERS, M.D.

Died from acute Bright's disease at his home in Sherman, Texas, on January 14, 1885, Dr. W. E. Saunders. He was born in Tennessee, on April 5, 1828, was left an orphan at an early age, and adopted by his grandfather, who lived in Henry county, Virginia, where he was reared and educated in the common schools of that county, spending his early years upon a farm. When about the age of 22 years he left Virginia and went to Tuscaloosa, Alabama, and began the study of medicine with Dr. Gill, of that place. He attended lectures at the Nashville Medical College from 1851 to 1853, graduating in the latter year. Moving to Texas the same year he began the practice of his profession in Fannin county, where he remained but a short time, removing thence to Sherman, where he spent nearly all of the remainder of his life.

In 1861 he volunteered in the Confederate Army, and was appointed Assistant-Surgeon of the Eleventh Texas Regiment, in which he served until the fall of 1862, when he was promoted to the rank of full surgeon, and assigned to duty in Clark's Regiment of Texas Volunteers. He enjoyed the confidence and respect of his command, and served with distinction throughout the war. In the winter of 1864–5 he was detached and sent to Arkansas to examine conscripts, and did valuable service by ordering men to duty who had been exempted for some trivial cause. At the close of hostilities he returned to Sherman, and resumed the practice of his profession. He attended a course of lectures at the University of Pennsylvania, and graduated from that institution in 1868. He was appointed Superintendent of the State Lunatic Asylum at Austin in 1879 by Governor O. M. Roberts, and successfully administered its affairs for a little more than two years, when he resigned to return to his home in Sherman, and again engage in private practice.

He was a man of fine physique, with a commanding figure and vigorous intellect. He was an attentive reader, digested well everything he read; and was possessed of a wide fund of general information. He was popular both as a physician and citizen with all classes in his community, and especially so with the young men, in whose society he delighted. He wielded a marked influence both in political and social circles; although he manifested a lively interest in the political affairs of the country, was never a candidate, and never held political office. He always commanded a good practice, was exceptionally well informed in the general literature of medicine, and carried to the bedside a ripe judgment. Though a general practitioner he was a surgeon of no mean capacity, but the department in which he excelled was that of diagnosis; being an acute observer and good reasoner, he rarely committed an error in diagnosis. He commanded the respect and confidence of his professional brethren in a marked degree, was an able counselor, agreeable and just to all.

He was a member of the American Medical Asso-

ciation, was first Vice-President of the Texas State Medical Association in 1879, and presided at its meeting in that year, was several times President of his County Medical Society, and an active and influential member. He was President of the Board of Medical Examiners for his District, and a railroad surgeon for many years. He was considered a "landmark" in the community in which he resided, and will be missed throughout the State. His character was above reproach, of a chivalrous nature, humane and generous to a fault. His charitable acts were performed in such a quiet way they were known to but few even of his personal friends, and his genuine modesty was sometimes detrimental to his personal interests. The profession has lost an able and loyal member, the community a useful citizen, a kind neighbor and cultured gentleman. He leaves a widow and one son. The profession of his county held a meeting, passed appropriate resolutions of respect, and attended his funeral in a body.

MISCELLANEOUS.

UNSANITARY CONDITION OF OHIO'S CAPITOL.—DR. R. HARVEY REED, of Mansfield, O., Secretary of the State Sanitary Association, has made a sanitary examination of the State House at Columbus, O., for the *Sanitary News*, and makes the following report:

Through the kindness of the chief engineer of the capitol, Mr. James Semple, a master plumber of Cincinnati, together with an eminent plumber of Columbus, accompanied me in the first inspection made about two weeks ago. In the second inspection I was accompanied by Mr. William Halley, a master plumber of Columbus, and the chief engineer. The following conditions were especially noticed: The "new" water closets of the House are the "Jennings" closet with tank supply, and intended to have a downward draft for ventilating purposes, but upon testing, they proved to be without any draft, and no means of ventilation other than the theoretical "downward draft" referred to. The urinals used are the old-fashioned ones made of porcelain and flushed with water. Drippings are taken up by a bountiful supply of sawdust scattered over the floor. The urinals are without ventilation.

We next went to what is known as the "old closet" of the House, which is an old-fashioned closet without traps of any description, and which is intended to be cleansed by a meager supply of water from a "tank supply and after wash," but which fails very decidedly in its purpose. Here the ventilation is supposed to be the "downward draft system," which, a test showed a draft sufficient to carry quite large pieces of paper out from the closet into the room instead of downward. This draft is constantly supplying the building with poisonous sewer gas in unlimited quantities.

Here the urinals are the old-style, lead lined, and without either traps or ventilators, and are ably assisting in the work of supplying the capitol with copious supplies of poisoned air.

The Senate water closets and urinals revealed the same deplorable condition as those of the House. On examining the flush tanks we found the overflow pipe connected with the sewer without either trap or ventilator, and, unless there should be a constant overflow to prevent it, there is an immense discharge of sewer gas which is sickening and revolting. These tanks are so situated in dark closets as not to be seen, but, by their location in the building, they are enabled to supply it with a bountiful supply of poisonous gas.

The main sewer of the capitol connects with the Broad street sewer, and is trapped with an S trap, and ventilated through the smoke stack, which is also intended to give a "downward draft" to the water closets, but which is a practical failure as it stands to-day.

The building is heated with steam pipes and an attempt at ventilation is made by introducing fresh air from the outside and warming it by means of these pipes in suitable brick chambers, and then carrying it through the building. The foul air is intended to be taken from these rooms in a similar manner and emptied into the smoke stack. This plan, however, does not succeed in getting rid of the foul air, and direct ventilation by means of the windows is often necessary in both houses.

It was noticed that the joints in the "live steam" pipes were made non-expansive, while the return pipes for the so-called "dead steam" pipes were made expansive, which serves to illustrate some of the scientific principles applied in the State Capitol in the plumbing line.

The escape of sewer gas in the basement is so extensive some days as to sicken the visitor who attempts to go through that part of the building. On other days it is scarcely perceptible. The writer having been present in both of these conditions, is reliably informed that this condition depended greatly on the direction of the wind.

Strange to say, the sewerage and plumbing of the capitol, as originally designed by the architect and executed, has mysteriously disappeared.

An appropriation has been made of $1,000 to put in new water closets, which should include the proper sanitary plumbing of the same.

The lighting of both houses is extremely unsanitary, the members having to sit facing large windows with the light glaring in their eyes, which together with the foul poisons that have free access to the capitol by means of improper and defective plumbing and ventilation, would make one feel that it is only charitable to excuse them for accused bad legislation, if the remedy for this all did not lay within themselves.

NATIONAL CONFERENCE OF STATE BOARDS OF HEALTH.—There will be an Annual Conference of State and Dominion Health Authorities at Toronto, Canada, early in October of this year, and all State and Dominion Boards of Health are cordially invited to send delegates. It is the design of this Conference to consider questions of mutual importance to all sections of the country, and in order that delegates may fully understand the topics to be discussed, as

well as to determine the time necessary to set apart for this work and not interfere with the regular exercises of the American Public Health Association, it is necessary that Boards of Health should formulate questions and propositions they wish to have considered, and send the same to the Secretary, at Concord, N. H., before August 1, 1886. A programme will then be made and sent to the several State Boards so that delegates can be prepared to act without delay, thereby facilitating the work of the Conference.

Please send all questions and propositions in exactly the form you desire them to appear in the announcement. Also, send the names of your delegates.

It is proposed to meet one or two days prior to the meeting of the American Public Health Association, and the length of the programme will decide the time. Therefore, all papers, questions and propositions should be submitted in due season.

G. P. CONN, *Secretary.*

Concord, N. H.

A DANGER IN TOY BALLOONS.—The *Lancet* says that it seems that the little toy balloons or Inda-rubber bladders which children inflate with the breath may be readily reversed by inspiration and even drawn into the air passages. In two instances recently death has occurred by suffocation, a balloon of the sort being drawn into the opening of the glottis. This is a matter of danger which ought to be recognized. Parents and nurses should be on their guard.

REPORT BY M. PASTEUR.—At the meeting of the Academy of Sciences last week M. Pasteur read the following report of the results of his anti-rabic treatment at his laboratory in the Rue d'Ulm: "The number of persons so treated amounted up to the 12th inst. to 726, including those who are still undergoing treatment. Of this number there were 688 who were bitten by mad dogs and thirty-eight by wolves, the latter being all Russians. The patients belonging to the first category are, with the exception of the little girl Pelletier, who, it will be remembered, died after a few inoculations, all doing well. More than half of that number have passed the dangerous period. Of the thirty-eight Russians who have been treated and are still undergoing treatment, three have died rabic; the others are doing well, but it is impossible to foresee what may happen to them, as there exists a profound difference between the bites of dogs and those of wolves, the proportion of deaths caused by rabid wolves being at least 82 per cent." M. Pasteur then concluded his report in the following terms: "The above facts demonstrate (1) that the duration of incubation of human rabies caused by the bite of a rabid wolf is often very short, very much shorter than rabies after the bite of a mad dog; (2) that the mortality after the bites of rabid wolves is considerable if we compare it with the effects from the bites of dogs. These two propositions may be sufficiently explained by the number, the depth, and the seat of the bites caused by the wolf, which so savagely attacks his victim, the attack being often on the head and face. The necropsy of the three Russians who died at the Hôtel Dieu, and the inoculation of rabbits, guinea-pigs, and dogs with the medulla oblongata of the first of the patients who died, prove that the virus of the wolf and that of the dog are sensibly of the same degree of virulence, and that the difference of the rabies of the wolf and that of the dog depends on the number and nature of the bites. These facts induced me to inquire whether, in the case of bites from rabid wolves, the method could not be usefully modified by inoculations in greater number and within a shorter time. The results will be eventually reported to the Academy. In any case, for the wolf in particular, it is good to submit the patient to the preventive treatment as soon as possible. The Russians of Smolensk were six days on their journey to Paris, and presented themselves at the laboratory fourteen or fifteen days after having been bitten. They might therefore have commenced the treatment eight days earlier, and one can not say what might have been the influence of this modification for the three patients who have succumbed."—*The Lancet*, April 24, 1886.

A RICH merchant, M. Chludow, has left more than £100,000 and a house to found a children's hospital in Moscow.—*The Lancet*, April 24, 1886.

THE PANAMA CANAL.—M. de Lesseps, who has recently returned from Panama, read a paper at a late meeting of the French Academy of Sciences giving an account of the progress of the great canal works. The sanitary condition of the workmen he described as "relatively good," contrary to the unfavorable prophecies which were freely uttered at the outset. In a hospital with 500 beds, M. de Lesseps found only 300 occupied.—*Lancet*, April 24, 1886.

M. VULPIAN has been elected Secretary for life to the Academy of Sciences, in place of M. Gamin, recently deceased.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM APRIL 24, 1886, TO APRIL 30, 1886.

Capt. Joseph K. Corson, Asst. Surgeon, granted ten days' extension of leave of absence granted in Order No. 79, April 15, 1886, Jefferson Bks., Mo. (S. O. 97, A. G. O., April 26, 1886.)

Capt. Wm. J. Wilson, Asst. Surgeon (Plattsburg Bks., N. Y.), granted leave of absence for one month, on surgeon's certificate of disability. (S. O. 25, Div. Atlantic, April 27, 1886.)

Capt. Robert B. Benham, Asst. Surgeon, ordered from Dept. Texas to Dept. Dakota. (S. O. 97, A. G. O., April 26, 1886.)

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY, DURING THE WEEK ENDING MAY 1, 1886.

Wieber, F. W. F., Asst. Surgeon, detached from R. S. "Vermont" and ordered to the "Hartford."

Tracy, Elmer C., Asst. Surgeon, ordered to the "Vermont."

Waggener, J. R., P A. Surgeon, detached from the "Hartford" and ordered to the "Iroquois."

Bransford, J. F., Surgeon, detached from the "Iroquois" to proceed home and await orders.

Kite, Isaac W., Asst. Surgeon, to duty at Naval Hospital, Brooklyn, N. Y.